



Digitized by the Internet Archive  
in 2016

# JOURNAL

OF THE

## ASIATIC SOCIETY.

---

*A few Instructions for Insect Collectors.\** By V. TREGGAR, Esq.

Entomological collections are now-a-days rather numerous in India, and would be more so, if the mode of preserving insects were generally known. There are many better qualified than myself to give instructions on the subject, but as the few directions I am able to give may be useful, I do not hesitate to offer them for the Journal. Independent of its scientific value, a well-preserved collection of insects is an object of attraction and interest to the most apathetic; the elegance and brilliancy of colouring, in some equalling the rainbow hues of the most beautiful birds; and the "shapeless" shape of others, in which they exceed, perhaps, the most fantastic formed monsters of the deep, with the wonderful variety of both colour and form, create those agreeable sensations of surprise and admiration, which constitute a large portion of the feeling called pleasure. Such a collection is not to be formed without trouble and attention, and if the necessary share of the former be bestowed on the first preparation and setting up, but little will be subsequently required. The great annoyances are damp and insects; the former is avoided by making the cases of dry wood, well varnished, or painting them in dry weather,

\* There is a paper "On the preservation of objects of Natural History," in the 4th vol. of the Journal of the Asiatic Society, by Dr. Pearson, an excellent authority on all such subjects.

and keeping them in a dry place; attacks of the latter are prevented by the application of arsenical soap, and having a quantity of camphor constantly in the cases; but this last is an expensive article as it readily evaporates, and some cheap and efficient substitute is a desideratum. The articles a collector must be supplied with are, pins, arsenical soap, a pair of fine pointed scissors, a lot of bristles from a large painting brush, a solution of lac in spirits of wine, a hand net, a collecting box, a drying box, and glazed preserving cases.

The pins are made expressly for the purpose in England, France, and Germany, and are, there, very cheap; their sizes are various, from one inch and a half to three inches long, and of corresponding thicknesses; they are absolutely necessary, for the common pins are too short even for middling sized insects, and too coarse for smaller ones; another great advantage in the proper pins is, their allowing the insects to be kept at a distance from the bottom of the box, by which they are removed somewhat from damp, and placed out of reach of any insects which may breed in the lining.

Arsenical soap is easily made according to the recipe given in Dr. Pearson's paper. [Vide p. 478.] I have made it with native soap, which if of good quality, loses its offensive smell when mixed with the other ingredients.

The bristles are very useful for strengthening such insects as from slenderness would be liable to break, and for joining broken legs or antennæ; for the latter purpose a bristle dipped in the lac solution is inserted lengthwise into one of the pieces, leaving enough to go similarly into the other piece, the rest is cut off, and then the two joined together. For large insects a slip of bamboo peel is better, as being stronger, and in some cases cotton must be wrapped round it to give the size and shape of the body. I would generally advise the use of one or the other.

The lac solution is made by pouring on the pounded lac a quantity of strong spirits of wine, and placing it in the sun (close corked) till dissolved; it should be thick, and is useful in joining broken insects, and fastening on limbs.

The net is of gauze, eighteen inches long, and sewn on a wire or rattan ring one foot diameter, the handle of any convenient length.

The collecting box which I use is thirteen inches by eleven, and three



inches deep, a pane of glass forming the front, and divided in two by a partition, which is again crossed by two others, making six divisions in all, each having a door one inch in diameter, closed by a disc of copper which swings on a small screw; each division opens behind also, to remove the contents, the door there being the whole size of the division. A box with many partitions is also very useful for sending to a distance, allowing each insect to be kept by itself, preventing their injuring each other, which they would do if many were jumbled together. It is a very bad plan to let the native collectors pin the insects as they catch them, for it is sure to be ill done, and moreover, as little pain as possible should be inflicted.\*

Any box will do to dry the insects in, provided it excludes light and ants, the former having a very injurious effect on colours, particularly of Lepidoptera, which lose much of their brilliancy even from common daylight, and the cases containing them should therefore be kept covered. The form of cabinet is a matter of taste, but I think none will be found better than the one contrived by Dr. Pearson, for the Museum of the Asiatic Society. When open, it shews four perpendicular rows of boxes; of these two rows are in the body of the cabinet, and one row in each of the doors, the latter being made deep enough to receive them; when shut, the boxes in the doors face the others, and thus light and dust are excluded, and the contents of the whole exhibited at once when required. The individual cases may be of any convenient size; my own are twenty-two inches by sixteen and three quarters, and half an inch deeper than the longest pin; the top half fits into the bottom by a rebate three-quarters of an inch broad,

\* A word or two on the "cruelty" of which Entomologists are accused. If by that word is meant "infliction of pain," I must plead guilty, but who are the accusers? Surely not you, my good Sir, who boast of the forty brace of snipe, or the fifty ditto quail have fallen before you. Nor you, my dear Madam, who, since this day last year, have delivered to the tender mercies of the cook, heaven only knows how many times 365 sheep, ducks, geese, fowls, &c. &c.—"Oh! but that was necessary"—Indeed! "we'll argue the point" some day, or if my accuser be of Wordsworth's "creed,"

That every flower

Enjoys the air it breathes;

then are we equally guilty; for believe me, the fragrant rose which Chloe received with such a smile and blush—did, when you plucked it,

Feel a pang as great

As when a giant dies.

and the box opens at about half its depth ; the sides are five-eighths of an inch thick, and the bottom a quarter of an inch, the former well varnished, and the latter painted, inside and outside ; if made in dry weather no injury is to be feared from damp. A single pane of glass is best on all accounts, and when let into the top, a slip of paper should be pasted over the edges of the box and glass, and a beading nailed or screwed on it. The bottom may be covered with cork, (which is good, but dear,) sola, or wax ; the sola is prepared in sheets in Calcutta, and the paste used should always have some sulphate of copper dissolved in it ; wax is excellent for the purpose, but (here) very dear. I have two boxes lined with it, and have not yet found any "uninvited" insects in them, while many have appeared in those with sola ; the commonest wax is the best, as its strong smell may be in its favor, and it is cheapest. To line the box place it as level as possible, melt the wax, and pour it through a coarse cloth ; it will, (if at a proper heat,) spread all over the box, which must be moved as required, if not quite horizontal : one-fourth of an inch is thickness sufficient, and all but large and heavy insects may safely be trusted in it, even with the boxes hung against the wall.

When an insect is caught, the first operation is to kill it, which, with all but Lepidoptera, may be performed by putting them in spirits of wine, or into a tin box placed in boiling water ; large ones may be thrown at once into the water, which kills them instantly without injury, but this mode is for those only of strong make and dull colours, at least I have not ventured to adopt it with any but such. Butterflies and moths die on pressure of the thorax below the wings, taking care not to squeeze so hard as to burst it.

When dead they are to be cleaned, which in very many species is best done by raising the wing cases and wings, and removing the soft skin underneath ; the whole of the entrails must be taken out, and the shell wiped with cotton ; diluted arsenical soap is now to be applied with a camel hair brush, and some should be thrust into the thorax and head also if possible ; close the wings and elytra, and through the right one insert a pin of fit size, bringing it out between the legs ; about half an inch of the pin must be left above the insect for the convenience of holding it, and the whole length should be such as to keep

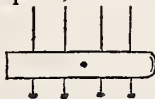
the legs well clear of the bottom of the box, and allow a good hold in the lining. Those species in which the upper part of the body is exposed, must be opened below, either by a longitudinal cut, or removing a triangular piece; if the body be soft, the bristle or slip of bamboo put in it is to be wrapped with cotton to its size and shape, and the skin carefully placed over it; this is particularly necessary with the Orthoptera and Neuroptera, which, otherwise, lose very much of their natural appearance. The Coleoptera alone are pinned through the elytrum, all others through the middle of the thorax, and there are many of every order too minute to admit of being stuck either way. Dr. Pearson uses

a strip of quill, one end being inserted between the rings of the abdomen, and through the other a pin is run; but as the quill is liable to curl and twist, I prefer using a bristle or fine pin, which is placed in a piece of cork, and by having the lat-



ter one inch long and quarter inch square, three or four small insects may be put side by side on one pin;

make several slips. The legs, wings, and antennæ, are to be placed in their natural position



by pinning the insect to a loose piece of sola, brought conveniently near the body of the insect; the feet are fastened down by pins bent to a bayonet shape, or by slips of card pinned over them, which latter are also used to retain in a proper manner the wings of butterflies, &c. For Lepidoptera, the sola to which they are temporarily attached, should have a long hollow to receive the body, that the wings may lie quite flat; the upper pair in butterflies and some moths should be carried well forward to expose the whole of the lower ones, and may be held so by fine



them. In those moths wholly hidden by the would recommend that forwards, and the latter

as to shew the body, as in the following sketch; this method exhibits the natural form of the insect, as well as the under-wings, which are often very beautiful.

pins stuck through whose under wings are upper in repose, I the former be drawn opened so much only



When the insect is pinned, and its limbs properly arranged, it is to be placed in the drying box till sufficiently rigid to allow of removal

to the preserving cases. I do not advise sun-drying, as it often causes a shrivelled appearance, particularly with soft-bodied or delicate insects.

In the cabinet, they are to be kept as far from the lining as possible, and the feet should on no account be allowed to touch it.

Insects are sometimes preserved in spirits, but I have always found them liable to become mouldy when subsequently set up in boxes, which however may have been from the weakness of the spirits used; when the plan is adopted, I would advise their being cleaned out as elsewhere mentioned. Large insects with strong mandibles should not be put alive with others, as they will probably destroy their legs or antennæ.

Practice will suggest many minutiae which I omit. The directions given will, I am certain, be found useful to those who wish to commence a collection, but do not know how; it is rather tedious work at first, but facility is soon acquired, and as the number of specimens increases, the labour is forgotten. A few boxes full have such a satisfactory appearance, that the pursuit will certainly be carried on with redoubled activity, and perhaps a taste for Natural History in general created, employing pleasantly time, which may otherwise pass but heavily.

Books on Entomology are expensive. I would recommend "Westwood's Text Book," as a cheap and useful work for a novice, and Boitard's "Manuel D'Entomologie," which is an excellent aid, as it gives a description of some thousand species, and contains an analytical table, by means of which the species to which any insect belongs, can be soon found.

---

*Recipe for preparation of arsenical Soap.*—*As. S. Journ.* Vol. iv. p. 462.

Take of Arsenic in powder, 2 lbs. White soap, 2 lbs. Salts of Tartar, 12 oz. Lime in powder, 4 oz. Camphor, 5 oz.

Cut the soap into thin slices, and melt it in a little water or spirit of wine over the fire; then add the salts of tartar and the lime. Take the mixture off the fire, and add the arsenic, taking care to mix it well by trituration in a mortar, or other convenient vessel; and when nearly cold, mix in the camphor, previously reduced to powder by the help of spirit of wine. When thus made, keep the arsenical soap in a glazed earthen pot, or a wide-mouthed bottle, and when used, dilute it with water to the consistence of cream.

The principal materials for both the above preparations may be procured in every bazar in India.

---



## A Vocabulary of the Koonawur Languages.

ENGLISH.	MILCHAN.]	B, HOTEEL OR TARTAR.	T, HEBURSKUD.
Father,	..	..	..
Mother,	..	..	..
Husband,	..	..	..
Wife,	..	..	..
Son...	..	..	..
Daughter,	..	..	..
Paternal Grandfather,	..	..	..
Paternal ditto,	..	..	..
Paternal Grandmother,	..	..	..
Maternal ditto,	..	..	..
Elder Brother,	..	..	..
Younger ditto,	..	..	..
Elder Sister,	..	..	..
Younger ditto,	..	..	..
Paternal Unele,	..	..	..
Maternal ditto,	..	..	..
Paternal Aunt,	..	..	..
Brother-in-law,	..	..	..
Mankind,	..	..	..
Man,	..	..	..
Woman,	..	..	..
Child,	..	..	..
Relations,	..	..	..
Male,	..	..	..

Apa, kea.

Umma.

Chogha.

Yolat.

P, huslee-ehung.

Esree-ehung.

Meme.

Meme.

Apee.

Apee.

Aeho.

Bya.

Sheeng, sungmo.

Bete.

Akoo.

Azhung.

Une.

Shukpo,

Mee.

Mee.

Eshree.

Chung.

Acho-bete.

P, huslee, p, hoosree.

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
Female, ..	..	..	..
Mancater, male, ..	..	Ane, ..	Mun.
Ditto, female, ..	..	Teenbo, sheempo, ..	Rakshush, shoona.
Ghost, ..	..	Sheemo, ..	Rakshunee.
Ferryman, ..	..	Notpa, ..	K, hoong.
Carpenter or mason, ..	..	Taroo, ..	Taroo.
Shoemaker or weaver, ..	..	Shingso, ..	Oris.
Blacksmith, ..	..	P, heeba, ..	Chamung.
Goldsmith, ..	..	Zo, gara, ..	Domung.
Merchant, ..	..	Moolzo, ..	Sonarus.
Shepherd, ..	..	Chongpun, ..	Chongpun.
Bird-catcher, ..	..	Loogzee, dokpo, ..	Palis.
Porter, ..	..	..	T, hut, heal.
Landholder, ..	..	Shecbee, t, hee, ba, ..	Chamung.
Chief of a village, ..	..	Misr, rukpo, dooa, ..	Busin.
A great man, ..	..	Lonbo, lasa, charus, ..	Matus.
Master, ..	..	Chidmo, ..	Shangnee.
Servant, ..	..	Noryotkun, ..	Zeetus, chookpo.
Slave, ..	..	Labo, choonpa, ..	Lapa, choonpa.
Trumpeter, ..	..	Chuksis, goeul, yato, ..	..
Trumpeter's wife, ..	..	Bet, ha, ..	Kunalee, baijee.
Drummer, ..	..	Bemo, ..	..
Waiter, ..	..	..	..
Cook, ..	..	Zimoen, zimpon, ..	Khidmutgar.
Vizier or wuzeer, ..	..	Mazin, ..	Romdaree.
Interpreter, ..	..	Kaloon, zongpoon, kalun, ..	Bisht, zompoon.
Doctor, ..	..	T, hoongchee, ..	Katpa.
	..	Hubba, larzhee, ..	Hubba.

ENGLISH.	MILCHAN.	B, HOTEA OR TARTAR.	T, HEBURKUD.
Thief,	Chorus,	Skoonma, koodma,	Chorus.
Beggar,	Ooncheets,	.. Miltokh, rigin,	T, hoacheenee.
Enemy,	Shotrus, beoor,	.. Madudpa, da,	Shotrus.
Coward,	Bangeo, boco, bameo,	.. ..	Bangeo.
Friend,	Dost,	.. Gonshe,	Dost.
Liar,	Urkolis,	.. Zoondea,	Keakosa, kosk, hola,
Horse postman,	.. (None in Koonawur,)	.. Tazum,	..
Monk,	Gelong,	.. Gelong,	Gelong.
Nun,	Chomo,	.. Chomo, anee,	Chomo.
Pilgrim,	K, hampa,	.. K, hampa,	K, hampa.
Head of a convent,	Gooroo,	.. Gooroo, lobun,	Lopon.
Scholar,	Lobtuk,	.. Lobtuk,	Lobtuk.
Inhabitant of the plains,	Neoolee,	.. T, hamee,	Neoolee.
Ram,	Ram,	.. Muneepudma,	Ram.
Luchmun,	Luchmun,	.. Kesur-k, higoo,	Luchmun.
Seeta,	Seeta,	.. Choojoo-doo boo,	Seeta.
Kishun,	Kishun,	.. Eeshee-cheoorgeal,	Kishun.
Debee,	Debee,	.. Doolma,	Doolma.
Thakoor, of a temple,	T, hakoar,	.. Sangeas,	Sangeas.
Bhugwan,	P, ha,	.. Changra-zeeekh,	P, haka.
Mahadeo,	Mahadeo,	.. Lopon,	Lopon.
Luchmee,	Zumala,	.. Zumala,	Zumala.
Lama,	Lamba, lumba,	.. Lamba,	Lamba.
Lamas with yellow caps,	Geloopa, gelookpa,	.. Geloopa, Deegooma,	Geloopa.
Ditto with red ditto,	Neengma,	.. Neengma, sakea,	Neengma.
Ditto with red clothes,	Dookpa,	.. Dookpa,	Dookpa.
A God, (Deota,)	Shoo,	.. La,	La.

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
Animal,	Sheeo,	..	..
Tiger,	T, har,	.. Ta, chan,	.. T, har.
Leopard,	Seek,	.. Zik, see, seek,	.. Sudur.
Bear,	Hom,	.. Barge, tong,	.. Hom.
Horse,	Rung,	.. Tah,	.. Shung.
Bull,	Dumus,	.. Langoong,	.. Langoong, etong.
Cow,	Lang,	.. Pa, Palang,	.. Balang.
Ram,	Kool,	.. Mamo,	.. Brang, ma.
Sheep,	Khus,	.. Loog,	.. Soom.
Ass,	P, hoch,	.. Poon, boomoo, bongo,	.. P, hoch, p, hot.
Mule,	Tceo,	.. Te, teco,	.. Teeoo.
He-goat,	Aj,	.. Rabo,	.. Keoot.
She-goat,	Bukur,	.. Rama,	.. La.
Yak, male,	.. Yak, yag,	.. Yakh, yag,	.. Yag, yak.
Ditto, female, ..	[male, Breemo,	.. Deemo,	.. Breemo.
Breed between Yak and Cow,	Zo,	.. Zo, zobo,	.. Zofo.
Ditto ditto, female,	.. Zomo, ..	.. Zomo, ..	.. Zomo.
Deer,	.. P, ho, ..	.. Na, ..	.. P, ho.
Deer, with large horns,	.. Skeen,	.. Keeng, ncan,	.. Keen.
Ditto, small ditto, ..	.. Sboo,	.. Joo,	.. Boo.
Ditto, of another kind,	.. Kakrus,	.. Baral,	.. Tanmo.
Wild Goat,	.. Sar, ..	..	.. War, namo.
Musk Deer,	.. Roch,	.. Ropache, laba,	.. Rots.
Hog,	.. Soorus, soongur, chest,	.. Toorfa, phak,	.. Soongur.
Ditto, wild,	..	.. Reep, ha,	.. Reep, ha.
Dog,	.. Kooec,	.. K, hec,	.. Kooec.
Cat,	.. Pecshee,	.. Peeela, pooshee,	.. Pecshee.



ENGLISH.	MILCHAN.	B, HOTEA OR TARTAR.	T, HEBURSKUD.
Monkey, large, ..	Gohnus, ..	Teeo, ..	Gohnus.
Ditto, small, ..	Bundrus, ..	Sheeo, ..	Bundrus.
Sheep and Goats, ..	Zilung, ..	Choogma, ..	Chooma.
Mare, ..	Gonma, ..	Golma, ..	Gonma,
Colt, ..	Rung kachookts, ..	T, hooroo, ..	Shung kachook.
Young Ass, ..	P, ho kachookts, ..	Boomtoog, ..	P, hot kachook.
Wild Yak, ..	Dong, ..	Dong, ..	Dong.
Ditto Horse, ..	Keang, ..	Keang, ..	Keang.
Ditto Ass, ..	Goork hur, ..	Goork hur, ..	Goork, hur.
Pup, ..	..	K, heegoo, ..	K, hoeeekchung.
Kid, ..	..	Loogoo, ..	Kulat.
Monkey's Cub, ..	..	Teegoo, ..	..
Calf, male, ..	..	Peto, ..	Zochur.
Ditto, female, ..	..	Peto, ..	Moondlo.
Flock of Sheep, ..	..	Loogrung, ..	Lamashala.
Hare, ..	..	Reehong, ..	Reehong.
Rat, ..	Reehong, ..	..	..
Mouse, ..	} Peeoo, ..	Peea, ..	Peeoo, peeoo.
Fish, ..	Muchus, ..	Neea, ..	Muchus.
Snake, ..	Sabas, ..	Dool, ..	Brool.
Frog, ..	Tipluk, ..	Balba, ..	Tipluk.
Porcupine, ..	Shae, ..	Toodoom, ..	Shur.
Centipede, ..	Zhachus, ..	Shunglaboo, ..	Shunglaboo, rangrabeoo.
Lizard, ..	Chemur, ..	..	Chunkla.
Grasshopper, ..	Sblen, ..	..	..
Locust, ..	Shelus, ..	..	Sherus.
Caterpillar, or maggot, ..	Hong, ..	Boo, ..	Boo.

ENGLISH.	MILCHAN.	B, HOTEA OR TARTAR.	T, HEBURSKUD.
Fly,	..	..	.. Boeung.
Bee,	..	..	.. Pranchee-beeang.
Firefly,	..	..	.. Mesungboo.
Bug,	..	..	.. Sootee.
Spider,	..	..	.. Dacee-boeung.
Moth,	..	..	..
Flea,	..	..	.. Meetee.
Butterfly,	..	..	.. Shoopeach.
Musquito,	..	..	.. Koeung.
Louse,	..	..	.. Shee.
Bird,	..	..	.. Pea.
Fowl,	..	..	.. Kookrcc.
Hawk,	..	..	.. Paze.
Pigeon,	..	..	.. K, hurin.
Chukor,	..	..	.. K, hure.
Crow,	..	..	.. Ka, p, horok.
Kite,	..	..	.. Goldus.
Goose,	..	..	.. Nangba.
Swan,	..	..	..
Duck,	..	..	..
Peacock,	..	..	..
Head,	..	..	..
Crown of head,	..	..	..
Face,	..	..	..
Forehead,	..	..	..
Hair,	..	..	..

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
Lock of hair, ..	Uzroo, ..	..	Roogchul. ..
Throat, ..	Gulung, ..	Ole, ..	Shango, golung. ..
Tongue, ..	Le, ..	Che, ..	Le. ..
Tooth, ..	Gar, bung, ..	So, k, ha, sokh, ..	Soa. ..
Neck, ..	Kakts, rakso, ..	Midba, okche, kemik, ..	Kaklee. ..
Mouth, ..	K, hagung, ..	K, ha, ..	A. ..
Beard, ..	Dar, hee, ..	Geow, k, hapoo, k, heeboo, ..	Darhee. ..
Mustachio, ..	Wusung, moocha, ..	K, hoopaa, ..	Wasung, moocha. ..
Lips, ..	Toonung, ..	Makub, shooto, ..	Toonung. ..
Nose, ..	Stagoos, ..	Na, ..	Neoom. ..
Eye, ..	Meek, ..	Meek, doogneee, ..	Mee. ..
Ear, ..	Kanung, ..	Amchok, namgeo, ..	Rupung. ..
Eyelid, ..	Meekchung, ..	Meekpoo, ..	Meekchung. ..
Chin, ..	Chetkung, ..	Male, ..	Okeo. ..
Arm, hand, ..	Got, god, good, ..	Lakpa, lakpeego, lak, ..	La. ..
Right hand, ..	Zugun-got, ..	Lakpa-lafa, ..	Zuhung-la. ..
Left ditto, ..	Derung-got, ..	Lakpa-yonma, ..	Derung-la. ..
Elbow, ..	Krooch, ..	Teemojon, ..	Keoototo. ..
Fist, ..	Moot, ho, goochoo, ..	Mooltookh, ..	Moot, hoo. ..
Finger, toe, ..	Prach, ..	Zoogoo, tante, ..	Brang. ..
Nail of finger, ..	Cheen, ..	Sidmoo, ..	Shen. ..
Shoulder, ..	Rank, hal, ..	Poongpa, ..	Poongpa. ..
Foot, ..	Bung, ..	K, hungba, t, hebo, ..	Bung, hut. ..
Small of leg, ..	Peelung, ..	Geetpa, ..	Peelung. ..
Thigh, ..	Loom, ..	Lasea, ..	Boolung. ..
Knee, ..	Poosh-pung, ..	Peemo, poohmoo, ..	Pooshpung. ..
Palm of hand, ..	Hustulung, ..	Lukt, hil, ..	Lukt, hil. ..

ENGLISH.	MILCHAN.	B, HOTEPA OR TARTAR.	T, HEBURSKUD.
Eyesh,	..	..	..
Rump,	..	Mekhp, ho, menma,	Meekchung, mikhrong.
Heel,	..	Chongto, ..	Chongto.
Waist,	..	Tinge, tingba, ..	T, hongul.
Skin,	..	Kedpa, ..	Kedpa.
Joint,	..	Pakhpa, ..	Pakhpa.
Breast,	..	Ching, ..	Chikh.
Belly,	..	Tang, ning, ..	Keo.
Back,	..	Todpa, p, hopa, topa,	K, hok, k, ho.
Bladder,	..	Geap, ..	Geab.
Vein,	..	Koopee, kopee,	Koopee.
Fat,	..	Sah, ..	Seerung.
Bone,	..	Checloo, ..	Cho.
Marrow,	..	Ropa, rooba, ..	Harung.
Eyebrow,	..	Kang, ..	Kang.
Blood,	..	Meekham, ..	Meekcham.
Breath,	..	T, hak, ..	Shooce.
Thumb,	..	T, hur, gchache, ..	Dako.
Hole of ear,	..	T, hebo, t, hedmoehc,	Prach.
Pupil of eye,	..	Nughab, ..	Kanikee.
Nostril,	..	Pootlee, ..	Meekzoor.
Cheek,	..	Nakoong, ..	Neoomedoeng.
Arm pit,	..	Zingba, damba,	Dampa.
Sole of foot,	..	Chingloun, ..	Keetlec.
Small of arm,	..	Kangdil, kangba,	Kangt, hil.
Hair of body,	..	Langura, ..	La.
Pudendum viris,	..	Poo, ..	Poo.
	..	Lebe, kotoh, ..	..



ENGLISH.	MILCHAN.	B, HOTEHA OR TARTAR.	T, HEBURSKUD.
Pudendum mulieris,	..	To, ..	..
Navel ..	.. Naeeng,	.. Teeba, teea,	.. Teba.
Ankle, ..	.. Pukat,	.. Longmora, cho,	.. Pukat.
Hollow below knee,	.. Koangcheek,	.. Keengra,	.. Pooshpang, yoogin.
Urine, ..	.. Chin, chibee,	.. Chin, chibee,	..
Body, ..	.. Deung,	.. Zoog, zookpo,	.. Zoospung.
Liver, ..	.. Sheen,	.. Chinba,	.. Chinba.
Heart, ..	.. Steeng,	.. Loa, sim,	.. Loa, shesha, sim.
Testicle,	.. ..	.. Lokhpa, lokpa,	..
Gums,	.. Steel, neel,	.. Gil, neel,	.. Neel.
Cue, worn by Chinese,	.. Ralpa,	.. Takchur,	.. Takchur.
Woman's breasts,	.. Peepee, yeboo,	.. Numa, yeboo,	.. Peepee.
Upper part of arm,	.. K, heooch,	.. Poomo, ..	.. Keoot.
Wing, ..	.. Pukrung,	.. Shokpa,	.. Shokpa.
Egg, ..	.. Lee, leech,	.. Ghooa, ..	.. Toom.
Tail, ..	.. Poornung,	.. Gama, ..	.. Mekon.
Cobweb,	.. Zool,	.. ..	.. Torung.
Cock's-crest,	.. Moling,	.. Takchur,	.. Geatur.
Feather,	.. Pool, ..	.. Pool, shookpa,	.. Pool.
Bird's-beak,	.. Shonung,	.. Chootoo, chooto, ..	.. Shonung.
Nipple,	.. Pood, peechoo,	.. Aeboo, noma,	.. Peechoo.
Cow's or Deer's horns,	.. Root, ..	.. Racho, ..	.. Roocho, reecho.
Sweat,	.. Doostee,	.. Chadpo, dooshtee,	.. Rabung, doostee.
Sleep,	.. Neendrung,	.. Neet, ..	.. Eef.
Swelling,	.. Pooch, purung,	.. Zerba, ..	.. Pooch.
Goitre, ..	.. Gunung,	.. Bah, ..	.. Gunoo.
Hunger,	.. On, ..	.. Togree,	.. Khebung.

ENGLISH.	MILCHIAN.	B, HOTEA OR TARTAR.	T, HEEURSKUD.
Thirst,	Cheesh, ..	.. Koomree, ..	.. Teckurbung.
Wound,	Moohceets, p, hoor, ..	.. Shooa, ..	.. Kc.
Famine,	Unkalung, ..	.. Unkalung, ..	.. Unkalung,
Pain,	Chot, ho, todo, doshung, ..	.. Nacha, doongal, ..	.. Nabung, took, hung.
Pleasure,	Khoshce, ..	.. Dakin, ..	.. Khooshee.
Smell,	Ganum, ..	.. Dcema, t, hema, ..	.. Deema.
Sneezing,	..	.. Reedba, ..	..
Kiss, ..	..	.. Pookh, ..	..
Spittle,	.. Tookung, ..	.. Checina, ..	.. Kratee.
Love,	..	.. K, huuta, ..	..
Flavour,	..	.. Khancee, ..	..
Cough,	.. Choo, ..	.. Loodpa, ..	.. Gool.
Cubit,	.. Reen, ..	.. T, hoo, ..	.. Kroo.
Smoke,	.. Doomung, doobung, ..	.. Tootpa, doodpa, ..	.. K, hoo.
Stink,	..	.. K, hachucks, deema-ganba, ..	.. Decma-kochung.
Life,	.. Zeewa, ..	.. T'ok, ..	.. Zeeco.
Truth,	{ Suchelee, deenung, ..	} Dangpo, ..	.. Decmlo.
	{ nirbaning, ..		..
Theft,	.. K, hoochco, choramung, ..	.. Kooa, ..	.. K, hootka.
Cold,	.. Lisk, ..	.. T'angmo, ..	.. K, hatkeo.
Heat,	.. Tapung, zhang, ..	.. { Mede, dodmo, d, hoonma, ..	.. Kotra, donmo.
	..	.. { donmo, ..	..
Fever,	.. Bok, ..	.. Rim, ..	.. Bok.
Justice,	.. Suchumee, ..	.. T'angpo, ..	.. Sucho.
Lie,	.. Urkolung, ..	.. Zoond, ..	.. Keko.
Knot,	.. Toouga, ..	.. Dootok, changdoo, ..	.. Toonga.
Merchandise,	.. Choug, ..	.. Chong, ..	.. Chong.

ENGLISH.	MILCHAN.	B, HOTEEA OR TARTAR.	T, HEBURSKUD.
Baggage,	.. Lotpot,	.. Nor, chilak-pulukh,	.. Lotpot.
The Plains,	.. Neel,	.. T, ha, geaghur,	.. Neel.
Debt,	.. Reen,	.. Booloon, pooling,	.. Toa.
Security for a person,	.. Logonis,	.. Nemeo, ..	.. Logonis.
Charm,	.. Stoongma,	.. Shooan, ..	.. Toonga.
Ascent,	.. Ring, tang,	.. Yer, kean, gen, yala,	.. Tang, lo.
Descent,	.. Shoong, zhup,	.. T, hoor, ..	.. T, hoor, yat.
Amusement,	.. Tumasha,	.. Tanmo, ..	.. Tanmo.
Abuse,	.. Galing,	.. Muumo, ..	.. Galing.
Age,	.. Deem,	.. Sungsum, ..	.. Seemung.
Boundary,	.. Seemung,	.. K, hato, k, hatook,	.. K, hacheoot.
Top,	.. Beel,	.. Yok, ..	.. Po.
Bottom,	.. Po,	.. T, hanmo, t, hookpa,	.. Mublo, breeshbung.
Battle,	.. Rashim, dashim,	.. T, himtook, ..	.. Poosheem.
Complaint,	.. Poosheem,	.. Rear, loongba, ..	.. Bonung.
Country,	.. Bonung,	.. Chakpo, ..	.. Reesha.
Crack,	.. Rookts,	.. Shoorne, ..	.. P, hamung.
Defeat,	.. P, hamcheeo,	.. Zheeg, ..	.. Gearbung.
Fear,	.. Beang,	.. Baragung,	.. Roaring.
Handful,	.. Sgar boong,	.. La, ..	.. Yoee.
Hill,	.. Rung, runga,	.. Ka, chinmo,	.. ..
Loud noise,	.. Dumskawado,	.. T, haging,	.. ..
Delay,	.. T, hara,	.. Zhoong,	.. Keelo.
Middle,	.. Muzhung,	.. Ka,	.. Lutung.
Noise,	.. Shad,	.. M, heen,	.. Meen.
Name,	.. Namung,	.. ..	.. ..
Peak,	.. Groochoo,	.. ..	.. ..

ENGLISH.	MILCHAN.	B, HOTEĒA OR TARTAR.	T, HEBURSKUD.
Plain,	.. Soldus,	.. T, hunga,	.. T, hunga.
Road,	.. Om,	.. Lam,	.. Om, am.
Rust,	.. K, hyung,	.. Ya,	.. K, hoeung.
Range,	.. D, hance,	.. ..	..
Song,	.. Geetang,	.. Lo,	.. Gerib, greb.
Bundle,	.. Books,	.. Bokcha,	.. Book, shateen,
Fold,	.. Doon,	.. Bak,	.. Ba.
Time,	.. Karung, detra,	.. Lal, lan, chot,	.. Karung,
Ashes,	.. Buspa,	.. T, hawa, koktul,	.. Miling, -bating.
Holc,	.. Doeeng,	.. Meeng, meeoong,	.. Doeeng.
Service,	.. Dang, chakree,	.. Yokpa, makh,	.. Lapa.
Order,	.. Hookum,	.. Ka,	.. Hookum,
Precipice,	.. Donk, hung,	.. ..	.. Donk, hung.
Trap,	.. Lurkee,	.. ..	..
Medicine,	.. Shel,	.. Mun,	.. Mun.
Cast,	.. Zat,	.. Rikh,	.. Zat.
Small Hill,	.. Dance,	.. Gongo, gankha,	.. Silib.
Shadow,	.. Soot,	.. Teema, deep,	.. Keeang.
Spark, ..	.. Keeang,	.. Mechak,	.. Gompā.
Step, ..	.. Goumpa,	.. Gompā,	.. Chongzo, bus.
Thing, ..	.. Bust,	.. Nor, zok,	.. Len.
Business,	.. Kamung,	.. Lakha, laha,	.. Kanche.
Word,	.. Batung,	.. Kachia, tam, kat,	.. Polung, jat, ho.
Place,	.. Pra, pusung, zaga,	.. T'e, nasa dusa, dungsa,	.. Gealbung.
Victory,	.. Gylcoo, zectecho,	.. Gealpa,	.. Buzum.
Language,	.. Buzum,	.. Doonna,	.. Khulec, k, hakashe, k, hao.
Something,	.. Chood, chut, t, hooch,	.. Chang, mana,	..



ENGLISH.	MILCHAN.	B, HOTEĀ OR TARTAR.	T, HEBURSKUD.
Mortar,	..	Zing, shing, ..	..
Price,	..	Gong, rin, reeng, ..	.. Molung.
Dream,	..	Meengmun, ..	..
Custom,	..	Lookh, t, heem, ..	.. Put, hung.
Hour, (about 20 minutes.)	..	Choosut, ..	.. Gurung.
Colour,	..	Marchoo, ..	... Rung.
Light of Fire, ..	..	Milche, marne, ..	.. Deewung.
Wick of Lamp, ..	..	Dooksur, dongsur, ..	.. Dongsur.
Brink,	..	Dul, ..	.. Dam.
Mud,	..	Dumbuk, ..	.. Kaluk.
Rock,	..	P, hulung, ..	.. T, hol.
Stone,	..	Doa, ..	.. Ra.
Pebble,	..	Tochoong, changpo-doa, ..	.. Rak.
Slate,	..	Pan, ..	.. Pan.
Sand,	..	Teeco, ..	.. Balung.
Seed,	..	Toogmin, songun, ..	.. Peezud, sangun.
Burden,	..	K, hooroo, ..	.. K, hooroo.
Field,	..	Zheeng, ..	.. Ree, reem.
Corner,	..	Doo, ..	.. Zoor.
Wall, side,	..	Cheekpa, ..	.. Beeting.
Sun,	..	Neema, ..	.. Nee.
Moon,	..	Dagar, ..	.. Gulsung.
Star,	..	Karma, ..	.. Karma.
Moon-light,	..	..	..
Thunder,	..	Took, dook, doong, ..	.. Goorgooree.
Lightning,	..	Longmal, loghmur, ..	.. Bizhoong.
Earthquake,	..	Sangool, ..	.. Sangool.

ENGLISH.	MILCHAN.	B, HOTEKA OR TARTAR.	T, HEBURSKUD.
Eclipse,	.. Gronung,	.. Zanjeen,	.. Gronung, rowa.
Rainbow,	.. Teerameets,	.. Zheazun, sheen,	.. Moorung-moortee.
Cloud,	.. Zhoo,	.. Teen,	.. Zhoo, deengma.
Wind,	.. Lan,	.. Langda, hoor,	.. Lan.
Fire,	.. Me,	.. Me,	.. Me.
Air,	.. Hash,	.. ..	.. ..
Earth,	.. Matung, sho,	.. Sakea, sa, sucha,	.. Matung.
Sky,	.. Surgung,	.. Nam,	.. Nam.
Ice,	.. Shanung,	.. Golchuks,	.. Shanung.
Frost,	.. Pagrum, pugle,	.. Keakh,	.. Shanutpung.
Hail,	.. Shoroo,	.. Shoree,	.. Shoroo.
Snow,	.. Pum, pung, pom,	.. K,ha,	.. Ung.
Rain,	.. Rodung, doeung,	.. Chirba,	.. Rodung, mookpa.
Spring,	.. Renum,	.. Peetka,	.. Gendo, goondo.
Winter,	.. Goon,	.. Dang-medokh, goonga,	.. K, hutkeo.
Autumn,	.. Charmee,	.. Tonga,	.. Sheldo.
Rainy season,	.. Shul,	.. Yarka, tonga,	.. Sheldo.
North,	.. T, hoad, reeng, delung,	.. Zhung,	.. Zhung.
South,	.. Shoong, jak, hung,	.. Zampooling,	.. Zampooling.
East,	.. Nes,	.. P, hala, shur,	.. Dooroo, shur.
West,	.. Ning,	.. P, hurka, nook,	.. Doozoor, nook.
North-west,	.. ..	.. ..	.. Leengechoong.
Village,	.. Deshung,	.. Yool,	.. Deshung.
House,	.. Keem, kcoom,	.. K, hangba, seekoong,	.. Kcoong, kcoom.
Cow-house,	.. K, hoorung,	.. Loogra,	.. Bong.
Cottage,	.. Shundung,	.. Reezhing,	.. Shurnung.
District,	.. K, hoodung,	.. K, hoodung,	.. K, hoodung.

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
Subdivision of a District,	Goree,	Chookhso,	Guree.
Fort,	Gorung,	K, hur,	Gorung.
Board,	Ro, p-hur,	Pangle,	Chuplung.
Post, Pillar,	T, hungung, t, hungmung,	Ka,	Tukh.
Ladder,	Cham,	Sanga,	Sanga.
Arch,	Togung,	Rupsul,	Teenul.
Beam,	D, harung, borming,	T, hogee-doongma,	Bororing.
Rafter,	Zhuldarung,	Daloo, duloo,	Zhuldarung.
Door,	Dwaring, beetang,	Go, seekpa,	Peetung.
Window,	Boning,	Karkum,	Bonet.
Door-post,	Cheekree,	Ribjee,	Ribjee.
Chain for fastening door,	Hoorung,	Golduk,	Golda.
Hook for ditto ditto,	Chootz,	K, hoozoor, geeling,	K, hoooor.
Shop,	Hatee,	T, hom,	Hatee.
Flat Roof,	Moolt, hung,	K, hadik,	Cham, kheam.
Sloping ditto,	Chuprung,	Tang, t, hok,	Chuprung.
Temple,	Kot, hee,	P, hobrung,	Kot, hee, kutarung.
			Choring.
Flag,	Darchut,	Durche, durboche,	Durchut.
Garden,	Sharung,	Mendok-doomra,	Sharung.
Hedge,	Chir,		Chir.
Dyke,	During, d, huno,	Cheekpa,	During.
Upright posts for grapes,	Stoong,		Toong, tukh.
Arbour for ditto,	Bashung,		Bashung,
Year,	Bursung,		Bursung.
Month,	Gol,	Lo,	La,
Day,	Dear, laee,	Daba, dawa,	Dear, zhangma.
		Neema zam, shakpo, za,	

ENGLISH.	MILCHAN.	B, HOTEĀ OR TARTAR.	T, HEBURSKUD.
Next Year,	..	.. Zugh, zhangma,	..
Last ditto,	..	.. Nungbur,	.. Orche.
This ditto,	..	.. Nuning,	.. Noning.
Noon,	..	.. Dalo,	.. T,honing.
Midnight,	..	.. Neema-p,he,	.. Neer.
Night,	..	.. Chan-p,he,	.. Adung-rating.
Sunrise,	..	.. Chanmo, chan, gongmo,	.. Moondo, moonca.
Sunset,	..	.. Neema-shur,	.. Neezhoorpung.
Morning,	..	.. Neema-kea,	.. Neegeootpung.
Evening,	..	.. Guara,	.. Numutre.
To-day,	..	.. { Toora, toorung, shoopa, } .. { shoobux, .. } .. Gokhmo, chan,	.. Namberbung.
Yesterday,	..	.. Toring-neemo, ..	.. Diring.
Day before Yesterday,	..	.. Dan, dang, ..	.. Yangto.
To-morrow, ..	..	.. K,hiringsha, ..	.. Dookeang.
Day after to-morrow,	..	.. Nam, nang, ..	.. Aeero, yoor, gnyro.
Long Day, ..	..	.. Neema-ringbo,	.. Meengea.
Short ditto, ..	..	.. Neema toogoon,	.. Shildodear-shung.
Water,	..	.. Choo, .. ..	.. Cheeget-dear.
River,	..	.. { Sangpo, muksung, khampa, } .. { sanpoo, .. }	.. Choo.
Rivulet,	..	.. Dokpo, loongba, tokpo,	.. Sumudrung, sampoo.
Well with stone spout,	..	.. Chooling, ..	.. Noongpa.
Ditto with wooden ditto,	..	.. Chooling, tarche,	.. Bacc.
Ditto for washing clothes,	..	.. T,homa, ..	.. Choo, wa.
Pond,	..	.. Zing, ..	.. Yoor, goona.
			.. Cho.



ENGLISH.	MILCHAN.	B, HOTEKA OR TARTAR.	T, HEBURSKUD.
Lake,	..	Cho,	.. Cho.
Canal,	..	Yooba, yoorā, ..	.. Yoor.
Strong Current, ..	..	Choang, shookh,	.. Shookh.
Skin for crossing rivers,	..	Kelpa,	.. Kelpa.
Drop,	..	Soora, t hikpa, ..	.. Choktee, chokchee.
Fog,	..	Mokhpa,	.. Mokhpa, mokpa.
Small Drops, ..	..	..	.. Zilba.
Wooden Bridge,	..	Samba, zum, ..	.. Zampa.
Rope,	..	Took, suzum, ..	.. Twarung.
Tree,	..	{ Tam, shingnokh, pang, shing- dong, tongpo, ..	.. Botung.
Bush,	..	Dongpo, ..	.. Sul.
Forest,	..	Rega, ..	.. Bonung.
Bark,	..	Konpa, ..	.. K, holub.
Branch,	..	Yulga, ..	.. Yulga.
Leaf,	..	Lep, laptee, loma,	.. Putlung.
Root,	..	Pudugh, ..	.. Zhilung.
Wood,	..	Sheeng, ..	.. Sheeng.
Pine,	..	Geam, ..	.. Geam.
Pine, Neora,	..	Kuminche, koneeunchē,	.. Ree, reet.
Birch,	..	Shakpan, toghar, takpa,	.. Shooput, shukh.
Oak,	..	..	..
Poplar,	..	Langba, ..	.. Mughul.
Large Juniper, ..	..	Shookpa, ..	.. Shookkoo, shoorpa.
Creeping,	..	P, huloo, pama, ..	.. Pama.
Another sort,	..	Bettir, ..	..
Gooseberry,	..	..	.. Neange.



ENGLISH.	MILCHAN.	B, HOTEEA OR TARTAR.	T, HEBURSKUD.
Hordeum Cœleste,	.. Ooa, ooe, ..	.. Neeoo, ..	.. Tingzud.
Barley, ..	.. Tuk, soom, ta, ..	.. Soa, ..	.. Zut.
Pease, ..	.. Pytung, ..	.. Tunma, t, hulma, ..	.. Pytung.
Beans, ..	.. Chustun, ..	.. .. ..	.. ..
Rice, ..	.. Ral, ..	.. Da, ..	.. Rul.
Flour, ..	.. Cheesang, ..	.. .. ..	.. ..
Flour of Wheat,	.. K, hunukung, ..	.. Pukhfe, ..	.. K, hunukung.
Parched Grain,	.. Yoot, ..	.. P, he, sumba, ..	.. Yooet.
Cucumber, ..	.. Kookree, ..	.. .. ..	.. ..
Turnips, ..	.. Shagur, ..	.. Neoongma, yoongma, ..	.. Shagur.
Greens, ..	.. Skand, skan, ..	.. Chunma, ..	.. Kan.
Red Pepper, ..	.. Peeplee, ..	.. Soorpunsa, ..	.. Peeplee.
Ginger, ..	.. Shont, ..	.. Chega, ..	.. Chega.
Opium, ..	.. P, heeme, ..	.. K, hercha, ..	.. P, heeme.
Onions, ..	.. Chong, peeaz, ..	.. Chong, ..	.. Chong.
Garlick, ..	.. Lostung, ..	.. Gokhpa, ..	.. Lafoo.
Wild Garlick, ..	.. Goze, ..	.. Koche, ..	.. Cheeskun.
Meat, ..	.. T, hoopaa, ..	.. Sha, ..	.. Sha.
Food, ..	.. Zamek, zamo, ..	.. T, haktok, ..	.. Zabung.
Sugar, fine, ..	.. Shakrung, ..	.. Kara, ..	.. Shakrung.
Sugar, coarse, ..	.. Gooram, ..	.. Gooram, ..	.. Gooram.
Butter, ..	.. Mar, ..	.. Mar, ..	.. Mar.
Milk, ..	.. K, heering, b, herung, ..	.. Oma, ..	.. Pel.
Butter-milk, ..	.. Bot, rat, ..	.. Tara, ..	.. Dara, botee.
Curdled ditto, ..	.. Doeung, ..	.. Sho, ..	.. Pil, keasp, hel.
Bread, ..	.. Bot, ..	.. Tigir, takree, ..	.. Tagree, rot.
Honey, ..	.. Wus, ..	.. D, hang, tangsee, ..	.. Pranchee.

ENGLISH.	MILCHAN.	B, HOTEEA OR TARTAR.	T, HEURSKUD.
Tea,	.. Boj, cha,	.. Cha,	.. Cha.
Intoxicating Spirits,	.. Rak, h,	.. Arak,	.. Rak, h.
Wine,	.. Shoo,	.. Chang-chamo,	.. Shoodung, yoo.
Tobacco,	.. Tumakoo, gurak, hoo,	.. Tumak, tumang,	.. Tumakoo, gurak, hoo.
Snuff,	.. Nusar,	.. Natik,	.. Nusar.
Salt,	.. Tsa,	.. Tsa,	.. Tsa.
Saltpetre,	.. Zunsao, shora,	.. Shora,	.. Shora.
Sulphur,	.. Gunik,	.. Moozhe,	.. Moozee.
Zedoary,	.. Nirbees,	.. Ponga,	.. Nirbees.
Oil,	.. Telung,	.. Markoo,	.. Mat, hee.
Bees' Wax,	.. Seetung,	.. Tasing, tasil,	.. Seetung.
Turpentine,	.. Ch, hee,	.. ..	.. Ch, hee.
Musk,	.. Katrung,	.. Larzee, lerzee,	.. Katrung.
Ditto, pod of,	.. Beena, bena,	.. Ladoom,	.. Bena.
Glue,	.. Silesh,	.. Peen,	.. Peen.
Poison,	.. Beeshung,	.. Dook, tok,	.. Beeshung.
Cap,	.. Tepung, tobung,	.. Shao, shamo, teebee,	.. Tepung.
Turban,	.. Pag,	.. T, hot,	.. Pak.
Shoe of Blanket,	.. Spon,	.. Lam,	.. Bulzhum, balzun.
Ditto of Leather,	.. Poolre, kooshera,	.. Koosheeree, kufsha,	.. P, honee.
Caps worn by Chinese,	.. ..	.. Menchook, b, hoorko,	.. ..
Large Blanket,	.. Doree,	.. Zan, zango,	.. Doree.
Small ditto,	.. Chadur, yanglees,	.. Neanglook, neangnoos,	.. Neangnoos.
Garment of Blanket,	.. Chooga,	.. Chooga,	.. Chooba.
Ditto of Sheepskin,	.. Porin,	.. Lakpa,	.. Lakpa, laga.
Ditto of Goat's-hair,	.. K, heear, k, hercha,	.. K, heear,	.. K, heear.

ENGLISH.	MILCHAN.	B, HOTEFA OR TARTAR.	T, HEBURSKUD.
Trowsers,	.. Sootun,	{ Nameea, kangnum, toorma, ..	{ Sootun.
Gloves,	... Goozub,	.. Lakshoop,	.. Goozub.
Any kind of Garment,	.. Unga,	.. Koh,	.. Gola.
Stocking part of Boot,	.. P, heenpa,	.. Pingpa,	.. Peengpa.
Garters,	.. Bongre,	.. Lamdokh,	.. Lamdokh.
Boots,	.. Uluk,	.. Lam,	.. Lam.
Stockings,	.. Tingbol,	.. Tingbol,	.. Tingbol.
Clothes,	.. Gas,	.. Doghluk, goluk,	.. Goluk, goloo, gola.
String for Trowsers,	.. Choorkoo,	.. Rugboo,	.. Sirko.
Girdle, Waistbelt,	.. Gachang,	.. Kerakh, kera,	.. Puret.
Pocket,	.. K, heesa,	.. Charda,	.. K, heesa.
Carpel,	.. ..	.. Gat, hao,	.. ..
Handkerchief,	.. Loongee,	.. Loongee, t, halong,	.. Loongee.
Felt,	.. Numda, p, heenpa,	.. Numda, cheengpa,	.. P, heengpa, numda.
Cloth,	.. Kupra,	.. Ra,	.. Ra.
Clasp for Gown,	.. Peechook,	.. Peechoo,	.. Peechook.
Earrings,	.. Duretoo, gukloo,	.. Sogong, konta,	.. Sogong, kokhroo.
Beads,	.. P, hrea,	.. Motpukun,	.. P, hrema.
China Silk,	.. Geanjee, goshen,	.. Geanjee, magoshin,	{ Geanjee, tankama, doog- reema, k, hurlona.
Cowrie Shells,	.. Kooreets,	.. Roonboo,	.. Geoen, gentz.
Ring,	.. Moodee, kaonr,	.. Soortook,	.. Laksub.
Bracelets, Anklets,	.. Daglo,	.. Doogoo,	.. Daklo.
Wool,	.. Chum,	.. Pul, bul,	.. Cham, chum.
Ditto of Sheep,	.. Beang-chum,	.. Chung-bul,	.. Beang-chum.
Worsted,	.. Ra,	.. Kootpa, nalma,	.. Bee.

ENGLISH.	MILCHAN.	B, HOTEĀ OR TARTAR.	T, HEBURSKUD.
Rope,	.. T, hakpa,	.. T, hakpa,	.. T, hakpa.
Shawl	.. Lana,	.. Lena,	.. Lena.
Wool with hair,	.. K, hulehukhs,	.. K, hulchukh,	.. Kulchukh.
Ditto without ditto,	.. Robung,	.. Ral,	.. Ral.
Hair among Shawl Wool,	.. K, holoo,	.. Sedpa,	.. Sedpa.
Yak's Hair,	.. Robung,	.. Ral,	.. Ral, robung.
Goat's ditto,	.. Shiagro, reet,	.. Rakoot,	.. Ree.
Twine,	.. Bat,	.. Doongsur,	.. Bat.
Thread,	.. Tumboa,	.. Koor, goor,	.. Tumboa.
Tent of Cloth,	.. Tumboa,	.. Rebo,	.. Rebo.
Ditto of Yak's hair blanket,	.. Tulung,	.. Koa,	.. Tal, pok.
Cow's leather,	.. K, hool,	.. K, hool,	.. K, hool, pukhpa.
Goat's ditto,	.. Shiga,	.. Ga, ka,	.. Ga.
Saddle,	.. Shtap,	.. Shap,	.. Tap.
Bridle,	.. Yopchun,	.. Pop, yop,	.. Yopchun, yopchen.
Stirrup,	.. Chutrung,	.. Seera, seeleea,	.. Seeleea, chutrung.
Umbrella,	.. Choongma,	.. D, hekpa, pirka, geookpa,	.. Choonga.
Walking Stick,	.. Cheet,	.. Karchee,	.. Gooroo.
Whitewash,	.. T, ho,	.. Shola,	.. Sola.
Charcoal,	.. Chiklim,	.. G, honpa, goomba,	.. G, honpa.
Mica,	.. K, hatg, honpa,	.. Konba,	.. Kotee.
Convent for Monks,	.. Koting, keeda,	.. Chomoling,	.. Chomoling.
Back-basket,	.. Chomoling,	.. Chokse,	.. Chokse.
Convent for Nuns,	.. Chokse,	.. Labreek,	.. Labreck.
Small Table,	.. Lareeks,	.. Mezhogh,	.. Mesung.
Picture,	.. Sang,	.. Shieta-k, holo,	.. Gadee.
Sticks for giving light,	.. Gadee,	..	..
Cart,	..	..	..



ENGLISH.	MILCHAN.	B, HOTEFA OR TARTAR.	T, HEBURSKUD.
Palanquin,	..	P, hepchang, geokchang,	.. Palkee.
Fire-place,	..	T, hap,	.. Meling.
Spindle for twisting	.. Worsted,	K, heeree,	.. P, hang.
Handmill,	..	Rantak, randa,	.. Got, hung.
Watermill,	..	Chootakh,	.. Tee-got, hung.
Lid,	..	Gum,	.. Gum.
Pole of Tent,	..	Goolkeookh,	.. Birk, ha.
Wooden Pin,	..	P, hoorba,	.. P, hoorba.
Lamp,	..	Chonme,	.. Deebung.
Looking Glass,	..	Melong,	.. Chokee, ashoo.
Comb,	..	Soa,	.. Shoir.
Stone Mortar,	..	Doltok, koolmo,	.. Koolmo.
Pair of Scales,	..	Pore, neagha,	.. Pore.
Trap,	..	..	..
Ball,	..	Reelbo,	.. Potokh.
Bag,	..	P, hut,	.. P, hut.
Foot of Table,	..	Kangba,	.. B, hung.
Skin for Flour,	..	K, hoolche, kealba,	.. K, hool,
Spectacles,	..	Migra,	.. Migra.
Granary of Wood,	..	..	.. Sheengmung.
Box,	..	Gamchoong,	.. Gamchoong.
Ditto for Papers,	..	Eegum,	.. Grom, eegum.
Cross-bow,	..	..	..
Trunk,	..	Zuma, gum,	.. Gum.
Bed,	..	Manzo,	.. Manzo.
Glass,	..	Shel,	.. Sheeshee.
Pellet-bow,	..	Dankong,	.. Shankong.

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
Pellet, ..	.. Shung, ..	.. Dochoong, ..	.. Shungra.
Hooka, ..	.. Chilum, hooka, jajree,	.. Hooka, ..	.. Hooka.
Chillum, ..	.. T, hotee, ..	.. Top, ..	.. T, hotee.
Surposh, ..	.. Boodnee, ..	.. K, hachot, ..	.. Chilum, k, hop.
Hooka Snake, ..	.. Nalo, ..	.. Nalee, ..	.. Nalee.
Smoking Pipe, ..	.. Gungsa, ..	.. Gungsa, k, hungsa, ..	.. Gangcha.
Sea Shells, ..	.. ..	.. Daba, neema, ..	.. ..
Rupee, ..	.. Roopee, ..	.. Mool, ..	.. Roopee.
1 Ditto, ..	.. Eet roopea, ..	.. Mool-see, mool-cheek, ..	.. Tee-roopea.
2 Ditto, ..	.. Neesh roopea, ..	.. Mool-nee, ..	.. Neshee roopea.
3 Ditto, ..	.. Soom roopea, ..	.. Mool-soom, ..	.. Soom roopee.
$\frac{1}{2}$ Ditto, ..	.. Delee, ..	.. Tangsa, tanka, ..	.. Delee.
Penny, ..	.. Dubwa, ..	.. Dubwa, ..	.. Dubwa.
Halfpenny, ..	.. Dela, ..	.. ..	.. Dela.
2 to 4 Annas silver coin, ..	.. Tumasha, paolee, ..	.. Zhow, geow, ..	.. Timashee, paolee.
Book, ..	.. Pot, hee, ..	.. Lukpum, potee, ..	.. Chogee-potee.
Letter, ..	.. Eegee, kuglee, kagulee, ..	.. Eegee, eezookh, ..	.. Eege, akhrung, kuglee.
Paper, ..	.. Kukalpat, ..	.. Shoogoo, ..	.. Therik, shoogoo.
Pen, ..	.. Nookdo, ..	.. Denyon, dingeo, deoon, ..	.. Neookshing,
Ink, ..	.. Seeahee, ..	.. Naksa, sirl, ..	.. Naksa.
Inkstand, ..	.. Mushajun, ..	.. Nakcoong, ..	.. Nakooong, nushajun.
Written Paper, ..	.. Eezhe, ..	.. Eezhe, ..	.. Eezhe.
Religious Character, ..	.. Oochen, ..	.. Oochen, lunra, ..	.. Oochen, lunra.
Letter, ..	.. Oome, ..	.. Oome, ..	.. Oome.
Pots of all kinds, ..	.. Baring, ..	.. Nooshet, nooshut, ..	.. Baining.
Cooking Pot, ..	.. Butloee, ..	.. Dig, ..	.. Butloee.
China Saucer, ..	.. Derma, ..	.. Derma, ..	.. Derma.

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
China Cup, ..	.. Kareeul,	.. Kareeul,	.. Kareeul.
Earthen Pot, ..	.. K, hoang, gur, ..	.. K, hangse, t, hoaa,	.. T, hoaa, k, hoang, lotung.
Wooden Vessel, large,	.. Zum,	.. Zum, darozo, soomjok,	.. Zum, zom.
Wooden Vessel with spout, ..	.. Jooa,	.. Soa,	.. Zoa,
Brass Pot, large,	.. Lotree,	.. Digchoong, loogoo,	.. Lotree,
Ditto Plate, ..	.. Nang,	.. Derma,	.. Nung.
Small brass Pot,	.. Bat,	.. Prat,	.. Prat.
Wooden Plate, for knead- ing flour, ..	.. Koonalee,	.. ..	.. Koonalee.
Camp Basket, ..	.. Pit, har,	.. Zima,	.. T, habdom.
Teapot, ..	.. Tibril,	.. Batib,	.. Tibril.
Teaspoon, ..	.. Chidoom,	.. Chidoom,	.. ..
Spoon, ..	.. K, heoch,	.. Chakcho, t, hoorma,	.. K, heot.
Iron for baking Bread,	.. Pan, ronpun, ..	.. Pan,	.. Rompun.
Iron Tripod, for Pot,	.. Lodanung,	.. Cheepeat,	.. Lodanung.
Wooden Vessel, small,	.. P, horwa,	.. P, horwa,	.. P, horwa, prot.
Benares, ..	.. Kasee,	.. Ooranasee,	.. Ooranasee.
Jugurnath, ..	.. Chamchookdoong,	.. Chamchookdoong,	.. Chamchookdoong.
Gya, ..	.. Durjeedin,	.. Durjeedin	.. Durjeedin.
The Ganges, ..	.. Chooma-gunga,	.. Choomo-gunga,	.. Choomo-gunga.
Mine, ..	.. K, haning,	.. Koomchang,	.. K, haning.
Ore, ..	.. Daeung,	.. ..	.. ..
Gold, ..	.. Zung,	.. Ser,	.. Zung.
Silver, ..	.. Mil, mool,	.. Mool,	.. Mool.
Iron, ..	.. Rung, run, pron,	.. Chakhs, chukh,	.. Chakh.
Copper, ..	.. Tramung,	.. Sang, zango,	.. Trumung.
Tin, Pewter, ..	.. Sot,	.. Sankurbuso,	.. Sot.

ENGLISH.	MILCHAN.	B, HOTEĀ OR TARTAR.	T, HEBURSKUD.
Brass,	Peetul,	Raghan,	Peetul.
Mercury,	Mulchoo,	Mulchoo,	Mulchoo.
Lead,	Seek,	Shanee, riltee,	Seek.
Borax,	Ch, hale,	Ch, hale,	Ch, hale.
Gun, large,	Ramchung, top,	Toorka,	Top.
Ditto, small,	Topuk,	Toorka,	Topuk.
Matchlock,	Nal,	Doobuk, tooba,	Nal.
Bayonet, Spear,	Burchō,	Doong,	Burchō.
Shield,	Dal,	P, hoop,	D, hal.
Sabre,	Trooal,	Raldee, barung,	Trooal.
Scabbard,	Shoob,	Shoop,	Shoop.
Leaden Ball,	Galung,	Reeldee,	Galung.
Bow, crooked,	Goom, kuman,	Zhoo,	Goom, kuman.
Ditto, straight,	Mo	..	Yooee.
Arrow,	Daroo,	T, ha, da,	Sheem.
Gunpowder,	Koor, koorch, k, hoorch,	Za, man,	Daroo.
Knife,	Goonaso,	Tee,	K, hoor.
Axe, for killing animals,	Lashta,	Limba,	Goonasoo.
Ditto, for cutting wood,	Dangra, tubur,	Turee, taree,	Lakt, ha.
Penknife,	Bankeech,	Neoogdee,	Neoogdee.
Razor,	K, hoorunts,	T, haguree,	Shagree, k, hoorung.
Needle,	Kep,	T, hak, hub, k, hab,	Kep.
Iron Chain,	Sumlung, suglung,	Chaktak,	Sunglung.
Steel, for striking fire,	Ronk, ho,	Mepeha, mekcha,	Mepeha.
Bell,	Gangt, hung,	Dheeloo,	Gantung.
Key,	Talung,	Koolig, d, heming,	Deemee.

ENGLISH.	MILCHAN.	B, HOTEA OR TARTAR.	T, HEBURSKUD.
Padlock, ..	Shanung, ..	Koolchakh, golcha, ..	Zhona, ..
Hoe, ..	Zam, ..	T hong, ..	Halas, ..
Plough, ..	Stul, hulung, ..	Neasing, ..	Pol, ..
Yoke of Plough, ..	Shkol, ..	Zong, ..	Zong, ..
Chissel, ..	Neano, ..	Krampa, ..	Krampa, ..
Pair of Tongs, ..	Cheemtoo, ..	Katikpa, chemzhe, ..	Zhabre, chinba, ..
Ditto of Scissors, ..	Katoo, ..	Sogle, ..	Retur, ..
Saw, ..	Retur, ..	Do, ..	Do, ..
Mallet, ..	Sdo, ..	Burm, ..	Burm, ..
Drill, ..	Burm, ..	Tebo, ..	Keoot, ..
Adze, ..	Basing, ..	T,hoa, ..	T,hoa, ..
Large Hammer, ..	Gonto, ..	Lakt,ho, ..	T,hor, t,hochoong, ..
Small ditto, ..	T,hor, ..	..	..
Anvil, ..	Gonung, ..	..	..
File, ..	Sekdur, ..	Sekdur, ..	Sekdur, ..
Borer, ..	Meeoong, ..	Meeoong, ..	Meeoong, ..
Blowpipe, ..	P,hookree, ..	..	P,hookree, ..
Iron Crow, ..	Mokung, ..	Chakber, ..	Mokung, ..
Ditto Wedge, ..	Chenung, ..	..	Mat, ..
Ditto Nail, ..	Keelung, ..	Zer, ..	Keelung, ..
Pinchers, ..	Soneshung, ..	..	Shoneshung, ..
Pricker, ..	Shulung, ..	Shulung, ..	Shulung, ..
Nippers, ..	Chups, ..	..	..
Bellows, ..	Sak,hoor, ..	Boota, bootpa, ..	Bhootpa, ..
Pickaxe, ..	Goling, ..	Tokche, ..	Khoat, ..
Small Drum, ..	Dulkeech, ..	..	Dulkee, ..
Large Trumpet, ..	Kunal, ..	Poa, ..	Kunal, ..

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
Small Trumpet,	.. Shonal,	.. Hurib,	.. Shonal,
Fiddle,	.. Dutaro,	.. Gobo, peang,	.. Peang, gobo, dutaree,
Kettledrum,	.. Dhol,	.. Gna,	.. Dol,
Tambourine,	.. Ningaro,	.. Damun,	.. Domak,
Fife,	.. Basung,	.. Neo, leoon, leengo,	.. Basung,
Sea Conch,	.. Doong,	.. Doong, toong,	.. Doong,
1	.. Eet,	.. Cheek,	.. Tee.
2	.. Neesh,	.. Nee,	.. Neeshee.
3	.. Soom,	.. Soom,	.. Soom.
4	.. Poo, pook,	.. Zhee,	.. Pee.
5	.. Gna, ma,	.. Gna,	.. Gnaee.
6	.. Took, toog,	.. Took,	.. Tookee.
7	.. Steesh,	.. Doon,	.. Nushee.
8	.. Raee,	.. Geat, gea, ge,	.. Geaee.
9	.. Sgoee,	.. Goo,	.. Gooee.
10	.. Sae,	.. Choo-t.hamba,	.. Chooee.
11	.. Seehud,	.. Chooksheek, chookshee,	.. Chootee.
12	.. Soneesh,	.. Choonnee,	.. Choonnee.
13	.. Sorum,	.. Chooksom,	.. Chooksom.
14	.. Supoo, supookh,	.. Choozhzee,	.. Chupee.
15	.. Suma, songa, sunga,	.. Choonga, chynga,	.. Choang.
16	.. Surk, sorok, sotok,	.. Chootook, choorook,	.. Chooroo.
17	.. Suteesh,	.. Choobdeon, choobdoon,	.. Choobdoon.
18	.. Surhae,	.. Chubgead, chubge,	.. Chubgead.
19	.. Susgoee,	.. Choorgoo,	.. Choorgoo.
20	.. Neeza,	.. Neeshoo,-t,hamba,	.. Nisa, neeza.
21	.. Neeza-ect,	.. Chaksheek, chakshee,	.. Neeza-tee, &c.



ENGLISH.	MILCHAN.	B, HOTEA OR TARTAR.	T, HEBURSKUD.
22	..	Channee, ..	..
23	..	Chaksoom, ..	..
24	..	Chabzhee, ..	..
25	..	Changa, ..	..
26	..	Charok, chatok, ..	..
27	..	Chabdoon, ..	..
28	..	Chabgead, chabge, ..	..
29	..	Chargoo, ..	..
30	..	Soomchoo-t, hamba, ..	Deoneeza.
31	..	Soksheek, sokchee, ..	Deoneera-tee, &c.
32	..	Sonnee, ..	..
33	..	Soksoom, ..	..
34	..	Sobzhee, ..	..
35	..	Songa, synga, ..	..
36	..	Sorok, sotok, ..	..
37	..	Sobdoon, ..	..
38	..	Sobgead, sobge, ..	..
39	..	Sorgoo, sorkoo, soorkoo, ..	..
40	..	Zheebchoo-t, hamba, ..	Neezh-neeza.
41	..	Shaksheek, shakshee, ..	..
42	..	Shannee, zhynnee, ..	..
43	..	Shaksoom, zhyksoom, ..	..
44	..	Shabzhee, zhybzhee, &c. ..	..
45	..	Shunga, shanga, ..	..
46	..	Sharok, shetok, ..	..
47	..	Shabdoon, ..	..
48	..	Shabgead, shabge, ..	..

ENGLISH.	MILCHAN.	B, HOTEKA OR TARTAR.	T, HEBURSKUD.
49	..	Shargoo, sharkoo,	..
50	.. Dyneeza,	Gnabchoo-t, hamba,	.. Dyneeza.
51	..	Gnaksheek, gnakchee,	..
52	..	Gnannee, ..	..
53	..	Gnaksoom, ..	..
54	..	Gnabzhee, ..	..
55	..	Gnunga, ..	..
56	..	Gnarok, gnatok,	..
57	..	Gnabdoon, ..	..
58	..	Gnabgead, gnabge,	..
59	..	Gnargoo, gnarkoo,	..
60	.. Soom-neeza,	Tookchoo-t, hamba,	.. Soom-neeza.
61	..	Raksheek, rakchee,	..
62	..	Rannee, ..	..
63	..	Raksoom, ..	..
64	..	Rabzhee, ..	..
65	..	Ranga, ..	..
66	..	Rarok, ratook, ..	..
67	..	Rabdoon, ..	..
68	..	Rabgead, rabge,	..
69	..	Rargoo, rarkoo,	..
70	.. Sadeshum-neeza,	Doonchoo-t, hamba,	.. Soom-neeza-chooe.
71	..	Tonsheek, donchee,	..
72	..	Tonnee, donnee,	..
73	..	T'onsoom, donsoom, &c.	..
74	..	T'onzhee, ..	..
75	..	Tonga, ..	..

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
76	..	.. Tondook,	..
77	..	.. Tondoom,	..
78	..	.. Tongead, tonge,	..
79	..	.. Tongoo,	..
80	..	.. Geatchoo, geazhoo-t, hamba,	.. Pinneeza.
81	..	.. Keasheek, geachee,	..
82	..	.. Keannee, geannee, &c.	..
83	..	.. Keaksoom,	..
84	..	.. Keabzhee,	..
85	..	.. Keanga,	..
86	..	.. Keorok, keatok, geto,	..
87	..	.. Keabdoon,	..
88	..	.. Keabgead, keabge,	..
89	..	.. Keargoo,	..
90	..	.. Goobchoo-t, hamba,	.. Pinneeza-chooe.
91	..	.. Koksheek, kokchee,	..
92	..	.. Konnee,	..
93	..	.. Kokssoom,	..
94	..	.. Kobzhee,	..
95	..	.. Konga,	..
96	..	.. Korok, kotok,	..
97	..	.. Kobdoon,	..
98	..	.. Kobgead, kobge,	..
99	..	.. Korgoo,	..
100	..	.. Gea-t, hamba,	.. Gea.
200	..	.. Neebgea,	.. Neeshee-gea,
300	..	.. Soomgea,	.. Soom-gea,

ENGLISH.	MILCHAN.	B, HOTEKA OR TARTAR.	T, HEBURSKUD.
400,	Poo-ra,	Zheebgea,	Pee-gea.
1,000,	Huzar,	Tong,	Choo-gea.
100,000,	Lak,h,	T,hee,	Lak,h.
10,000,000,	Kuror,	Boom,	Kuror.
1st,		Tangbo, dajee, goma,	Doonchee.
2d,		Nip,ha, neeba, ..	..
3d,		Soomba,	..
4th,		Zheeba,	..
$\frac{1}{4}$ ,	Prebung,	Cheekcha,	Pure.
$\frac{1}{2}$ ,	Adung,	Phe,	K,hanung.
$\frac{3}{4}$ ,	Soompre, shoompree,	Soomcha,	Soompure.
$1\frac{1}{2}$ ,	Deo,	Cheek-p,he,	Deo.
$2\frac{1}{2}$ ,	Dy,	Neesh-p,he,	Dy.
Twofold,	Neesh-doon,	Neebak,	Neeshba.
Threefold,	Soom-doon,	Soombak,	Soomba.
Once,	Eet-karung,	Lalcheek, lalcheeg,	Teekarung.
Twice,	Neesh-karung,	Lannee,	Neeshkarung.
January,	Mahang,	Daba-chooneeba,	Mahang.
February,	P,lungnung,	Daba-d,hangba, tangbo,	P,lungnung.
March,	Chetrung,	Daba-neeba,	Chetrung.
April,	Bysagung,	Daba-soomba,	Bysagung.
May,	Zhestung,	Daba-zheeba,	Zhestung.
June,	Asharung,	Daba-maba, gnaba,	Asharung.
July,	Shamnung,	Daba-tookpa,	Shamnung.
August,	Badrung,	Daba-doonba,	Badrung.
September,	Indurmung,	Daba-ketpa, keba,	Indurmung.
October,	Kateeung,	Daba-gooba,	Kateeung.

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
November,	.. Mooskeerung, ..	.. Daba-chooba, ..	.. Mooskeerung.
December,	.. Poshang, ..	.. Daba-chookcheekpa,	.. Poshang.
Sunday,	.. Aetwarung, ..	.. Za-meema, ..	.. Aetwarung.
Monday,	.. Soarung, ..	.. Za-daba, ..	.. Soarung.
Tuesday,	.. Munclarung, ..	.. Za-meengmar,	.. Munclarung.
Wednesday,	.. Bood,harung, ..	.. Za-lakpa, ..	.. Bood,harung.
Thursday,	.. Brasput, ..	.. Za-p-hoorboo,	.. Brasput.
Friday,	.. Shookarung, ..	.. Za-pasung, ..	.. Sookarung.
Saturday,	.. Shunsheerus, ..	.. Za-penba, ..	.. Shunsheerus.
I,	.. Goo, goos, neenga,	.. Gna, ..	.. Gee, geo.
'Thou,	.. Kee, ka, kas, ..	.. Keot, ogo, k,herung,	.. Hoonee, gnan, gna.
He,	.. No, nos, zha, zho,	.. P,haee, te, k,hong,	.. Oodoomee, uroo, wa, p,ha.
We,	.. Kishung, ..	.. Gnatumshe, net,	.. Eneshe, eneating.
You,	.. Kee, kees, keena,	.. Kherung-tamshe, k,hetgeak,	.. Gnaneeshe, onpatung.
'They,	.. No, nogonda, zohugo,	.. P,hagee-tamshe, wateshe,	.. Urteeshe.
This,	.. Yo, zha, ..	.. Dee, d,hee, ..	.. Oea, aee, yooee.
'That,	.. No, noo, ..	.. Ote, oode, p,hagee,	.. Oza, uroo, ado.
You all,	.. ..	.. Keozhuk, keozha, goon,	.. Goon.
We all,	.. ..	.. Gnazhuk, net, ..	.. ..
Who,	.. Hatto, haee, ..	.. { K,hoe, soola,soo, kangeeda,	.. Soonee, soo.
What,	.. T,he, hum, ..	.. } sooe, ..	.. K,hainde, go, k,ha, ka.
Mine,	.. Ung, ..	.. Chee, gang, ka, cha,	.. Gee.
Yours,	.. Kana, keena, ..	.. Gnarung, gnaringee,	.. Gnan, oonee.
His,	.. Zhoo, noo, ..	.. K,heourung, keoringee,keoke,	.. Uroo.
Any body,	.. ..	.. Te, no, ..	.. ..
One's own,	.. ..	.. Lering, ..	.. ..
	.. ..	.. K,hoe, ..	.. ..

ENGLISH.	MILCHAN.	B, HOTEĀ OR TARTAR.	T, HEBURSKUD.
Whatever,	..	.. Zhalma, shalma,	..
Another,	..	.. Zhancheek,	.. Drongtee.
How many,	..	.. Champeen, chumgee, chum,	.. Eneeta, wanee, enc.
All you people,	..	.. K, heot-tamchat,	.. Hoonatung.
This side,	..	.. Choorka,	.. Deezhoor.
That side, across,	..	.. P, harka,	.. Doozhoor.
Near, beside,	..	.. Doroo, nemoo, ..	.. Nemo.
Beyond,	..	.. P, hagee, p, hala,	.. Dooroo.
Away,	..	.. ..	..
Without (wanting,)	..	.. Mitkun,	.. Manunee.
Again,	..	.. Pheemo-chookpa, dalda,	.. Neeoa, tatla, logh, dolda.
Yes,	..	.. Ou, la, koosul, ..	.. Ou, ounge, o.
No,	..	.. Me, met,	.. Manee.
Pleasantly,	..	.. Tanbo,	.. Tanno.
Whence,	..	.. Kana,	.. Gochee.
What like,	..	.. Cheenda,	.. K, hunea.
How often,	..	.. Cham, chamcha,	.. Enehta.
That place,	..	.. Tere,	..
From within,	..	.. Tangma, nangma,	.. Nongonche.
Above, Up,	..	.. Tang, nang, k, hatok,	.. T, harung, chokcho, chopcho,
Below, Down,	..	.. Yokh, yog, mala,	.. Yagoon, yagoon, yoozin.
Afterwards, Backwards,	..	.. K, habrul, geatpo,	.. Geabchee.
Behind,	..	..	..
Before,	..	.. Koongtal, doondo,	.. Donchee.
Between,	..	.. Zhoong,	.. Keelo.
Enough,	..	.. Yong, mangbo,	.. Ho.
Here,	..	.. Deeroo, eeroo, ..	.. Oeea.



ENGLISH.	MILCHAN.	B, HOTEĀ OR TARTAR.	T, HEBURSKUD.
There,	.. Noa, doa, ..	.. P, hagee, magee, ..	.. Doa, ona, oza.
Hence,	.. Zhoouks, ..	.. Deena, gana, ..	.. Oeachee, aeeche.
How, How much,	.. Tera, te, teta, ..	.. Chum, chumcha, ..	.. Ene, enekta.
Now,	.. Hoon, hoona, ..	.. Ta, takhsung, ..	.. Lisungo.
Quickly,	.. Hal, hasil, hojoa, ..	.. Shok, jokha, geokpa, ..	.. Keockhpa, geokpa.
When,	.. Terung, ..	.. Nam, name, ..	.. Eno, eenoo.
Slowly,	.. Mesung, ..	.. Kale, goloo, ..	.. Mesung.
Within,	.. Koomo, ..	.. Nangdoo, tangdoo, tangna, ..	.. Nangdoo, nowun.
Without,	.. Barung, ..	.. P, ha, p, heeta, ..	.. P, heetala, p, heelokh.
Where,	.. Hum, ..	.. Kangdoo, gana, ga, gan, kala, ..	.. Goa, go.
Very,	.. Dir, up, har, ..	.. Mangbo, ..	.. Bong.
Always,	.. Suda, ..	.. Tandoo, ..	.. Soda.
From,	.. Buksh, duks, na, no, che, o ..	.. So, na, soo, ..	.. Che, un, chee, soo.
With,	.. Dung, rung, ..	.. Laroo, ..	.. Dung.
In, into,	.. O, ..	.. Roo, la, doo, ..	.. Un, oon, goon, che.
On, upon,	.. En, o, den, oon, oom, ..	.. La, k, hatookba, le, ..	.. To, chapeho.
More,	.. Aee, ..	.. Diring, yang, ..	.. Duroong.
At another time,	.. Nepeks, ..	.. Zhanla, logh, dalda, ..	.. K, heenping, neka.
Also,	.. Kamee, hamee, ..	.. Lang, ..	.. Lee.
Any where,	.. O, ..	.. Ganeung, goeo, ..	.. Goeo.
Of,	.. O, lo, ung, rung, pung, ..	.. Ge, ..	.. Ge, ke.
To, For,	.. Chera, phoo, ..	.. La, roo, ..	.. O, do, to, goon, un, na.
Why,	.. Kee, ..	.. Cheela, cheephila, ..	.. K, hyro.
Or,	.. T, hog, ..	.. Karbo, ..	.. La.
White,	.. Reg, rok, ..	.. Nakpo, nangmo, ..	{ T, hungnee, chungnee. { chang.
Black,	..	..	.. Kantee.

ENGLISH.	MILCHAN.	B, HOTEĀ OR TARTAR.	T, HEBURSKUD.
Red, Red hot, ..	Shooeeg, ..	.. Marbo, ..	.. Mangnee.
Green, ..	Rag, ..	.. Zhango, ..	.. Zhango.
Blue, ..	Rak, rok, ..	.. Monpo, ..	.. Teenanee.
Yellow, ..	Peek, peekla, ..	.. Surbo, ..	.. Lene.
Light-grey, ..	..	.. G, honpo, toosee, ..	..
Brown, ..	..	.. Keata, zheangnak, ..	.. Zheankoo.
Orange, ..	..	.. Chinka, chulkur, ..	..
Striped, ..	..	.. T, hata, t, hao, ..	.. Patlo.
Square, ..	..	.. Doobzhee, ..	.. Peezoor.
Round, ..	..	.. Riril, ..	.. Boorboor.
Oval, ..	..	.. Nurnur, ..	.. Chouchon.
4-sided, ..	..	.. Doobzhee, ..	.. Peezoor.
5-sided, ..	..	.. Doongna, ..	.. Gnazoor.
Even, Plain, ..	..	.. T, hangbo, dunda, ..	.. T, hanga, t, hanea.
Different, ..	..	.. Soso, ..	.. K, hecho.
Same, ..	..	.. Neampo, ..	.. Neampo.
Clean, ..	..	.. Karbo, takpo, ..	.. Chungnee.
Dirty, ..	..	.. Tema, ..	.. Kree.
Dark, ..	.. { Acearung, aeenarus, ..	.. } Moonteekh, ..	.. K, habung.
Light, ..	.. { tam-sang, ..	.. } T, hungpo, ..	.. Chunglung.
Dear, ..	..	.. Gonbo, ..	.. P, hampo.
Cheap, ..	..	.. K, hemo, ..	.. K, he.
Dry, ..	..	.. Kampo, ..	.. P, horka.
Wet, ..	..	.. Loupa, ..	.. Cheeko.
Distant, ..	..	.. Ringbo, t, hagrang, ..	.. Warkor, war, warko.
Near, ..	..	.. Nemo, ..	.. Nemo.

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
Fresh,	.. Kanung,	.. Nurgamo,	.. Ma-soashea.
Rotten,	.. Sanung, soasho,	.. Nurmet,	.. Soashea.
Fat,	.. Motus,	.. Bompo, rompo,	.. Burka.
Lean,	.. Nakeech,	.. T,hamo,	.. Nakeet.
Fine,	.. Lanus, paech,	.. T,hamo, tapo,	.. Nakeet.
Coarse,	.. Motus,	.. Rombo,	.. Burka.
Good, Well,	.. Dam, dambash,	.. } Gamo, poochung, etpo,	.. Ebuta, epo.
Large,	.. Tek, teg,	.. } kamo, jakpo, ..	.. Shangnee.
Small,	.. Gato, zaich, zigich,	.. Chinmo, chitpo, chidmo,	.. Tsigee, keta, zigit.
Large and Small,	.. ..	.. Choogoon,	.. ..
High,	.. T,hoa,	.. T,hamo,	.. T,hampo.
Low,	.. Yooa,	.. Mamo,	.. Mamo.
Finished,	.. Doogeo,	.. Yongsong,	.. Wangzoo.
Heavy,	.. Leehig,	.. Cheende,	.. Leeko.
Light,	.. Langeets,	.. Yangmo,	.. Yanko.
Hard,	.. Talk,	.. Geongbo,	.. Geongbo.
Soft,	.. Kolus,	.. Boolbo,	.. Boolbo.
Hot,	.. Zhang, zhabung,	.. Donmo,	.. Kosra.
Cold,	.. Lisk, leesk,	.. Tangmo,	.. K,hutkeo.
Much, many,	.. Churus, teong, up,har,	.. Sambo, mangbo,	.. Bong.
Few,	.. Cherib,	.. Choogoon,	.. Zigit,
Narrow,	.. Zatee,	.. Zhenchoogoon,	.. Zhenchoong.
Broad, wide,	.. Churus, koonk,	.. Zhenchinmo,	.. Zheengchun.
New,	.. Neoong,	.. Soma,	.. Neoongnee.
Old,	.. Ooshk, roozha,	.. Neengpa,	.. Neengpa.
Naked,	.. Salgee	.. Chergong,	.. Suptee.

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
Well, Whole, ..	Sarus, ..	Changbo, ..	.. Sarus.
Sick, ..	{ Sursheemurko, truch, toto, ..	Nazha, ..	.. Nabung.
Right, ..	Zugung, ..	Yatal, ..	.. Doore.
Left, ..	Derung, ..	Yoontal, ..	.. Bae.
Deaf and Dumb, ..	Lata, zharo, ..	Kol, ..	.. Lata, kol.
Weak, ..	Murdar, ..	Romyookung, ..	.. Lonatpa.
Strong, ..	Moostund, ..	Shakageakhpa, ..	.. Moostundo.
Perpendicular, Plain, Strait, ..	Pudrus, ..	T, hungpo, ..	.. T, hunea.
Slanting, ..	K, her, ..	Yonte, ..	.. K, her.
Uneven, ..	Yooa-t, hoa, ..	Gen-t, hoor, ..	.. Tang-t, hoor.
Crooked, ..	{ K, hoongsheem, koota, kootang, ..	Goorgoor, ..	.. Goorgoor.
Blind, ..	Kanung, ..	Zhura, ..	.. Kano.
Lame, ..	K, horus, k, horung, ..	Zhao, ..	.. Khorus.
Lazy, ..	T, hisk, ..	Lelo, ..	.. Ulseekh.
Clever, ..	Dambash, ..	Gamo, ..	.. Epobash.
Some, ..	Cheta, ..	Cheeachee, ..	.. K, hulukha.
Deep, ..	Doogus, ..	Syting, chokheeldoo, ..	.. Doogus.
Written, ..	..	Teechur, deaeut, ..	.. Chegunee.
Right, ..	Tateek, ..	Teek, ..	.. Tan.
Full, ..	Boongee, ..	Kangchur, k, hang, ..	.. Bingzo, bingso.
Empty, ..	Shae, shagee, ..	Toongba, ..	.. Toongpa, tongpa.
True, ..	Sochus, ..	Dinba, ..	.. Deemlo.
Rich, ..	Zeetus, ..	Nurduk, ..	.. Chookpo.
Poor, ..	Daljees, ..	Meltokh, ..	.. Metpo.
Ripe, ..	Shoeco, loongeo, ..	Choghain, choa, ..	.. Shobung, sho.

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
Unripe,	..	Mashos, mashoeo, cheeshpoeo,	.. Kachung, masho.
Young,	..	Dekrus, dikrach, neook,	.. Shura.
Beautiful,	..	Dam,	.. Zoko.
Ugly,	..	Maree, kochung,	.. Mazoko.
Bad, Wicked, ..	..	Mur, kochung,	.. Kochungta.
Sour,	..	Soork,	.. Soorko.
Sweet,	..	T, heek, im,	.. Neamko.
Bitter,	..	Kahuk,	.. K, huktukpa.
Silent,	..	Tam,	.. Tamna.
Slack,	..	T, hisk,	.. Moktus.
Tight,	..	Chal,	.. Gutus.
All,	..	Choe, she,	.. U, ung, shet.
Angry,	..	Roshung,	.. Cheekpa.
Blunt,	..	Mootlo,	.. Me-chunko.
Sharp,	..	Rask,	.. Chunko.
Broken,	..	Zhookoo,	.. Keakcha, keaka.
Running (Water,)	..	Beho,	..
Cloudy,	..	T, hinga,	.. Dinga.
To Ask, Beg, ..	..	Oonming, eemig,	{ T, habung, t, hoabung, shao- pung.
" Arrive,	..	Poonmig, pooshmig,	.. Nookpung, nootpung.
" Assemble,	..	Doomig,	.. Autung-zapung.
" Ascend,	..	Tangmig,	.. Tungmung.
" Allow,	..	..	.. Matpung.
" Be,	..	..	..
" Buy,	..	Zongmig,	.. Chongbung.

ENGLISH.	MILCHAN.	B, NOTEA OR TARTAR.	T, HEBURSKUD.
To Burn, <i>v. a.</i>	.. Pongmig, bongmig, beenmig,	Tookzha, takzha,	.. Rotbung, beekbung.
" Blow,	.. P, honggamig, p, hokramig,	P, hoozha, ..	.. P, hoobung, p, hoosootpung.
" Beat (a Drum,)	.. Tongmig, bujamig,	.. Doonja, d, hoonja, tokja,	.. Koolbung, bujabung.
" Build,	.. Pangmig, langshemig,	.. Chozha, cheekzha,	.. Lennung.
" Bring,	.. Leamig, kermig impkera,	.. Khoorzha, k, hebzha,	.. Repung imp. Bret. rikpung.
" Bore,	.. Kamig,	.. Pookcha, ..	.. P, heokpung.
" Break,	.. Choongmig, tookmig, toonmig	.. Chokcha, choomzha, chakja,	.. Keakpung, imp. kea.
" Boil,	.. Skooanig,	.. Kolzha, ..	.. Kooatpung.
" Blow,	.. P, hoeeamig,	.. P, hoozha, ..	.. (B. imp. Raee.)
" Bring,	.. { Kannig, karmig, leshis- mig, kashkemig, .. }	..	..
" Bury,	.. K, harung, kormig,	Sana lokcha, ..	.. Matungchee-hanmung.
" Bite, Sting,	.. Burangmig, cheengmig,	.. Mookcha, ..	.. Cheepung.
" Bray, Neigh,	.. Bushumig,	.. Kacha, ..	.. Busutpung.
" Bark,	.. Choolmig, chool-tongmig,	.. Kacha, ..	.. Zoolbung, busutpung.
" Blow the Nose,	.. Seetung, -yoongmig,	Nachoo-peeja, ..	.. Seebung-serbung.
" Count,	.. Narmig,	.. Cheezha, ..	.. Shoommung.
" Cook,	.. Lunnig,	.. Chozha, ..	.. Lennung.
" Call,	.. Koonig, imp. koon, koot,	.. Bocha, imp. bot, kucha,	.. Hotpung. imp. hot.
" Cohabit,	.. Goshmig, gonmig,	.. Geoja, imp. go, ..	.. Goolbung.
" Cough,	.. Choomig,	.. Ook t, hookcha, ..	.. Depung, imp. det.
" Carry, Carry off,	.. P, heemig, keramig,	.. Kerzha, k, herzha,	.. Kamchee, lopung.
" Converse,	.. Batung, lonmig,	.. Kucha-lupcha,	..
" Crawl,	.. Syooms-yoonmig,	.. T, honja, ..	.. Wungpung.
" Come out,	.. Doonmig,	.. Chacha, chakcha,	.. Wokpung.
" Cut,	.. Mulmig,	.. Shokja, yongzha, keocha,	.. Rabung, imp. race.
" Come,	.. Boonmig, zhamig, zhceramig,	.. Lebzha, p, hepja,	..



ENGLISH.	MILCHAN.	B, HOTEA OR TARTAR.	T, HEBURSKUD.
To Dwell,	.. Busunig, neemig,	.. Chaksha.	.. Busutpung.
„ Die,	.. Sheemig,	.. Sheezha,	.. Sheechbung.
„ Do,	.. Lanmig,	{ Pecha, geazha, chozha, } checha, bezha.	{ Lemung, imp. len. }
„ Drown,	.. Doobeamig,	.. Doorzha,	.. Doobeatpung.
„ Dive,	.. Teo-beemig,	.. T, hongja,	.. Toongmung,
„ Drink,	.. Toongmig,	.. Deeroo-shokzha,	.. Deeroo-rabung.
„ Descend,	.. Yooa-beemig,	.. Soonzha, chezha,	.. Shonmung, garbung.
„ Dance,	.. Chamig,	.. Kokcha, kocha, doozha,	{ Korbung, kotebung, imp. } kotae.
„ Dig,	.. Kornig,	.. Meengzha,	.. Mangmung.
„ Divide,	.. Kangmig, achemig,	.. Kanizha,	.. P, hopung.
„ Dream,	.. Mangmig,	.. Saja,	.. Zabung, imp. zae, za.
„ Dry,	.. Charnig,	.. Zingre-peechea, nolja,	.. Bilsheebung, koolsheebung.
„ Eat,	.. Zamig,	.. T, hopcha,	.. Purutbung.
„ Fight,	.. Rashmig, dashmig,	.. Deelja, p, herja, dimzha,	.. Keshbung, kekshbung.
„ Find,	.. Puremig, puramig,	.. Jutcha,	.. Reebung.
„ Fall,	.. Gormig, brook-beemig,	.. Zheekcha,	.. Lotpung.
„ Forget,	.. Bushmig, bushemig,	.. Geopcha,	.. Gearbung.
„ Fear,	.. Beangmig,	.. K, hongzha, k, hangzha,	.. Tatpung.
„ Fire (a Gun,)	.. Pyamig,	.. Dozha, geookcha,	.. Peenpung.
„ Fill,	.. Poongmig, boongmig,	{ Tocha, tacha, terzha, } karzha, tongzha, t, hocha,	.. Boetpung.
„ Flow,	.. Bongmig, bohémig,	.. Rarozha,	.. Dabung, k, hebung. imp. daee.
„ Give,	.. Ranmig, kemig, imp. ken,	.. ..	.. Yeopung.
„ Get drunk,	.. Keosmig,	.. ..	.. ..

ENGLISH.	MILCHAN.	B, HOTEFA OR TANTAR.	T, HEBURSKUD.
To Get up,	.. Surshmig,	.. Longzha,	.. Shotpung.
" Gather,	.. T, homig,	.. Dookcha,	.. T, hootpung.
" Groan,	.. Choonesmig,	.. Khooncha,	.. K, hoonmung.
" Grind, (beat,)	.. Yoonming,	.. T, hokhja, takzha,	.. Hooetpung, tokpung.
" Gape,	.. Khakangskamig,	.. K, hapeja,	.. Ak, hoabung.
" Go,	.. Beenmig, imp. bae,	.. Dozha, songzha, ringzha,	.. Debung.
" Hunger,	.. Beenmig,	.. P, hooja,	.. Krebung.
" Hack,	.. Onmig,	.. Tokzha,	.. ..
" Hear,	.. Chomig,	.. ..	.. ..
" Hang, (a thief,)	.. T, hasmig, rochnig,	.. Chorzha, neanja,	.. Roongpung, gopung.
" Invert,	.. P, haeeoshmig,	.. Chang ehang choopecha,	.. P, hansee-dabung.
" Jump,	.. Gomlanig,	.. Khabook-checha,	.. Gom-lenbung.
" Knock,	.. Goanig, langshemig,	.. P, hakeha,	.. Goangpung.
" Kill or Beat,	.. Tok, hamig,	.. Doongzha,	.. Koolbung.
" Keep,	.. Sandmig, sanmig, imp. sat,	.. Socha, Sacha,	.. Satpung.
" Kick,	.. Tamig,	.. Borzha,	.. Tabung.
" Know, Understood,	.. Spugus-ranmig,	.. T, heo-geabcha,	.. Pukechoo-tapung.
" Knead,	.. Nemig, gomig,	.. Shezha,	.. Sepung.
" Lick,	.. Stemig,	.. Zeezha,	.. Mochamung Imp. moochae.
" Lie down,	.. Lemming,	.. Dakcha,	.. Lembung.
" Learn,	.. Kherdishmig,	.. T, hetdacha,	.. Pretpopung Kherpopung.
" Let go,	.. Koosheemig,	.. Lapcha,	.. Lupsheebung.
" Laugh,	.. Charamig,	.. Keorja, churja, tonzha,	.. Plootung.
" Live,	.. Wannig,	.. Gocha,	.. Wotpung. Kangsheebung.
" Light, (a fire,)	.. Shoongmig,	.. Sonzha,	.. Seengbung.
" Look,	.. Parmig,	.. Barzha, Tangzha,	.. Chotpung.
	.. Damig,	.. Chalzha,	.. P, hatpung, t, hangmung.

ENGLISH.	MILCHAN.	B, HOTEKA OR TARTAR.	T, HEBURSKUD.
To Load, (a gun,)	Poongmig, ..	Kangzha, ..	.. Peenuug.
" Milk,	Choormig, ..	Zhozha, ..	.. Choorbung.
" Melt,	Gulamig, guladmig,	Zhoozha, ..	.. Golatpung.
" Mend,	Tooninakeo.lanmigtoonamig,	Toor-geapcha, ..	.. Toonabung.
" Make, do, ..	Lanmig, ..	Zozha, lynzha, ..	.. Lemung, imp. len.
" Mix,	Skormig, shkonmig,	Tezha, Tookhja, ..	.. Koobung, thoeabung.
" Measure,	Reennig, ..	Reenzha, ..	.. K, hooroo-p, heakpung.
" Nourish,	Yongmig, palamig,	Talzha, ..	.. Keotpung.
" Open,	Tongmig, toangmig,	Pootzha, peja, ..	.. P, hebung, pebung.
" Obey,	Muneamig, ..	Cheezha, ..	.. Munabung.
" Plant,	Rameamig, ..	Chookcha, ..	.. Romeabung.
" Place, imp. shet,	Shenmig, taomig, thomig, ..	Porzha, jupcha, ..	.. Tabung, chakpung.
" Plough,	Hulung-lanig,	Zheeng-mozha, ..	.. Hulus-lenmung meobung.
" Press,	Changmig, ..	Chakcha, ..	.. Chakchakpung.
" Petition,	Urz-lanmig, ..	Zhooa-p, hoolzha, ..	.. Urz-lenmung.
" Play,	Yochmig, ..	Cheja, ..	.. Geabung.
" Pound,	Koolmig, ..	Doongzha, ..	.. Koolbung.
" Push,	Yoonig, ..	P, hoolja, ..	.. Nookpung.
" Print,	Par-raunig, ..	Par-geabcha, ..	.. Par-totpung.
" Pull,	Danmig, d, hamig imp. dap.,	T, lingzha, t, henzha, ..	.. Dapung, imp. dap.
" Prick,	T, hopeamig, ..	Chookcha, sookecha, ..	.. P, heokpung, googbung.
" Put on (clothes,)	{ Pooksheemig, imp. pook- sheen p, hoksheemig,	Goenje, imp. gon, ..	{ P, hoocheebung, imp. p, hoo cheen.
" Root out, ..	Toanmig, imp. toat,	Jubcha, p, hochha, pokhja, ..	.. P, hoonmung.
" Remove, ..	Seamig, ..	.. ..	..
" Ring (a bell,)	Bajamig, ..	Doomja, doongzha, ..	.. Bujabung, imp. bujaee.
" Read, ..	Purusmig, ..	Dokcha, ..	.. Seelbung.

ENGLISH.	MILCHAN.	B, HOTEA OR TARTAR.	T, HEBURSKUD.
To Run,	.. D, hyamig, t, hooremig,	.. Geokcha,	.. Galbung, grulbung, boetpung.
" Ride,	.. Deshokshimig, Shokshemig,	.. Zhonzha, shonzha, zonzha,	.. Shooksoobung.
" Roast,	.. Poksheamig, ..	.. Shakcha,	.. Rotpung.
" Roll up,	.. Metenmig, ..	.. Tilja,	.. Meteabung.
" Reap,	.. Cholamig, ..	.. Guazha,	.. K, hobung.
" Run away,	.. Bohmig, ..	.. Shorzha,	.. Bropung.
" Rain,	.. Budomig, lugdomig,	.. Yoanzha,	.. Ruga, bung.
" Stab,	.. Gosh-ranmig, ..	.. Choozha,	.. Chootpung.
" Slip,	.. Brench-Eemig, blenmig,	.. Decha,	.. Bletpung.
" Stoop,	.. Rong-beemig, ..	..	..
" Sing,	.. Gannig, lanig, lanmig, ..	.. Tonzha, lenja, tongzha,	.. K, herbung.
" Sit, stay,	.. { Toskeemig imp. toskeen,	.. Docha, zokhzha, zokhja,	.. Popung.
" Sell,	.. Rennig, imp. ret, ren, ..	.. Chongzha, chomsha,	.. Rungmung.
" Speak,	.. Lonnig, lushmig, tachmig,	.. Lupcha, serja, lopzha,	.. Lopung, lokpung.
" Search,	.. P, hochismig, poeheimig, ..	.. P, hoeha, chajja,	.. P, hatpung.
" Stride,	.. Langshemig, ..	.. Chong nezha ..	.. Chongpa-tutpung.
" Swim,	.. B, houbemig, ..	.. Choola-keal-geapcha,	.. Keal-tutpung.
" Stand up,	.. Choommig, asarchoomig,	.. Kagzha, langzha,	.. Shotpung.
" Snatch, sure,	.. Chongmig, ..	.. Zoomja,	.. Choommung.
" Shave,	.. Tantomshig, ..	.. Chacha,	.. Gnokpung.
" Silence,	.. Stamig, ..	.. Tame-docha, ..	..
" Smell,	.. T, hoo bung-choarmig,	.. Noomzha, ..	.. Moonmung.
" Spit,	.. Peemmig, imp. peet,	.. Chemzha, lootpa-thookcha, ..	.. Latee-p, heupung.
" Shut,	.. Yangmig, ..	.. Chookcha, Geapcha, joopja,	.. Peckpung, imp. pee.
" Sleep,	.. K, heamig, tangmig,	.. Nealzha, ..	.. Goochbung,
" See, look,	..	.. Tozha, taja; thongzha, thoosja,	.. Kammung, tungmung.

ENGLISH.	MILCHAN.	B, HOTEĀ OR T'ARTAR.	T, HEBURSKUD.
To Steal,	..	.. Koozha,	.. Khootpung,
" Shew,	..	.. Tanja,	.. Kangmung,
" Split,	..	.. Chacha, shakhzha,	.. P, holbung.
" Sew,	..	.. Chimzha,	.. Poonmung, ponmung.
" Spread,	..	.. Teengne-tongzha,	.. T, heenga-dabung.
" Sow,	..	.. Tapja,	.. Peetpung.
" Serve,	..	..	..
" Say,	..	.. Soorja, sorokcha,	.. Ringbung.
" Turn out,	..	.. Tontongzha,	.. K, herbung, k, helbung,
" Thirst,	..	.. Konzha,	.. Teekarbung.
" Tear,	..	.. Chotzha, chacha,	.. Cheerabung.
" Throw,	..	.. Dimzha, Dimtungzha,	.. Reenga-k, herbung.
" Tie,	..	.. Tomja, domja, keekcha,	.. Choonmung.
" Take up,	..	.. Kobzha, takcha, toghzha,	.. Tekpung, tepung.
" Tremble,	..	.. Darzha,	.. Kreengmung.
" Twist,	..	.. Dimzha,	.. Kr, inmung.
" Take a walk,	..	.. Koorakoorzha,	.. Kora-korung.
" Take,	..	.. Lenja, noenja, kherja,	{ T, habung, t, hoabung imp. t, hoae detpung.
" Tumble,	..	.. Borzha,	.. Reaabung, kepung.
" Take out,	..	.. Tonzha,	.. Hamnung.
" Take aim,	..	.. Chanee-geopcha,	.. Lenga-tatpung.
" Take,	..	.. Neozha, yazha,	.. Yapung,
" Unloose,	..	.. Tolzha,	.. P, harbung.
" Walk,	..	.. Dozha,	.. Debung.
" Whisper,	..	.. Dozook-serja,	.. Onea-lokpung.

ENGLISH.	MILCHAN.	B, HOTEĀ OR TARTAR.	T, HEBURSKUD.
To Weave,	.. Tungmig,	.. T, hakcha,	.. Takpung.
Wash,	.. Cheemig,	.. Toozha, t, hooja, shalja,	.. Oorbung.
Weep,	.. Krammig,	.. Goonja, gnoozha,	.. Toebung.
Write,	.. Chemig,	.. Teezha,	.. Chebung.
Whistle,	.. Shooshooling-lanmig,	.. Shooshoo-serja,	.. Shooshee-lepung.
Weigh,	.. Tolanig,	.. Korzha,	.. Tolabung.
Wake,	.. Tosheemig, sarmig,	.. Goolja,	.. Tekpung.
Wish,	.. Geamig,	.. Goezha,	.. Geoonmung.
Warm,	.. Parshmig,	.. Dezha,	.. Toshbung.
Yawn,	.. Hushkamshmig,	.. Habaezha,	.. Hushkamung.
Yoke, (in a plough,)	.. Tocheamig,	.. ..	.. ..
Am,	.. Took,	.. Yook,	.. ..
Is,	.. Tō, doon, doo,	.. Yot, hin, dook,	.. Nee, Sa, hin.
Are,	.. Ton,	.. Yoze, yoen, yot,	.. ..

ENGLISH.	MILCHAN.	B, HOTEELA OR TARTAR.	T, HEBURSKUD.
Hold your tongue,	.. <sup>1</sup> 2 silent remain T <sup>1</sup> am tosh, <sup>2</sup> how many years have gone to you <sup>1</sup> 2 3 4 5	.. <sup>1</sup> 2 Tame dot, 5 4 2 1 3	.. <sup>1</sup> 2 Tamna po.
How old are you,	.. <sup>1</sup> clouds 2 T <sup>1</sup> oro zhooh to, <sup>2</sup> 1 God o, <sup>3</sup> 2 1 Noo dung beeo,	.. <sup>1</sup> 2 3 4 Keotla lo cham song, to day sky cloudy is D <sup>2</sup> iring num t, hinga yut, Luktoo, lakpa la, <sup>3</sup> 2 1 P, hae laroo song,	.. Gnano ene bursung de. .. <sup>1</sup> 2 3 4 D <sup>2</sup> iring num dinga ta. .. La goon. <sup>3</sup> 2 in company 1 Uroo dung yambo de. .. <sup>3</sup> 2 1
Oh man, ..	.. <sup>2</sup> 1 2 1 Dam to, dambasheton,	.. P, hagee dung song, { Meenjee, 2 1 1	.. } Uroo dung de. .. <sup>2</sup> 1 Epo nee.
Are you well, ..	.. <sup>1</sup> 2 Me beeteo, <sup>3</sup> 1 N <sup>3</sup> oa hatto, <sup>3</sup> 1 2 Molung t, he to, Zheera, <sup>1</sup> 2 Hum to,	.. Gamo yot, jakpo yoze, Pangdoo, <sup>1</sup> did die Me sheeo, <sup>1</sup> 2 Soo hin, <sup>1</sup> 3 2 Chee reeng yut, P, hep, h, 1 2 Kangdoo, ganayot. <sup>3</sup> how much 2 Reen chum him,	.. Me beekcha. .. <sup>1</sup> 2 Soo nee. .. <sup>1</sup> 3 2 Kha molunge nee. .. Runa. .. <sup>1</sup> 2 Go nee. how much 3 Ene molung.
What is the price,	.. <sup>1</sup> 2 3 Come, <sup>1</sup> 2 Where is it, .. <sup>2</sup> 1 What is the price,	.. Kantee keebrung,	..
Very early, ..	..	..	..



ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
Turn him out,	.. To toa shet, ..	.. Tontong, ..	.. P, hana k, her, p, hanak, hel.
How many times have I told you, ..	<sup>1</sup> Tenjubur, te-lok, ..	<sup>1</sup> Chamcha, -cham, -lupsong, ..	<sup>1</sup> Eneka lokee.
Silence, ..	..	{ K, hatoo toong, k, harokpa dot, zal toksho, ..	..
Stop, ..	.. D, hen tosh, ..	..	..
Come down, ..	<sup>2</sup> Shoong zha, shoong zheera, ..	<sup>2</sup> Mala shok, ..	<sup>2</sup> Yat raee.
Go up, ..	.. Ring beo, ..	<sup>2</sup> Yala song, ..	<sup>2</sup> Lo de.
Come here, ..	.. Lo zha, ..	<sup>2</sup> Deeroo shok, ..	<sup>2</sup> Oea raee.
Go along, ..	.. Nes beo, paenij beeto, ..	.. Phula song, ..	.. Boet kade, duroo de.
Take care, ..	.. T, hulun ral, ..	.. Ta cheek, tanesong cheek, ..	.. Kan chee.
Where are you going, ..	.. Ku hum-beetun-betish, ..	.. K, herung gana-songzha, ..	<sup>2</sup> Gnan go-deno- debung.
Where is your house, ..	.. Kan keem hum to doon, ..	.. K, herung k, hangba kangdoo, ..	<sup>2</sup> Gnan keoon go nee.
What thing is that, ..	.. Yo the bust to, ..	.. Chee zok hin, ..	<sup>2</sup> K, ha bus hin.
Where are they going, ..	.. No mee hum-beetish-beeto, ..	.. Deebea gana do, ..	<sup>2</sup> Urteeshe go denee.
When will you go to your house, ..	<sup>4</sup> Kan keem o terung beetun, ..	<sup>2</sup> K, herung k, hangba la nam doon, ..	<sup>2</sup> Gua keoom un enoo.
Give this to him, ..	.. Yo no pung ran, ..	<sup>2</sup> D, hee p, hayee la t, hot ..	<sup>2</sup> Uroo daee wado, daee.

ENGLISH.	MILCHAN.	B, HOTEEA OR TARTAR.	T, HEBURSKUD.
Give me something to eat, ..	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> Ungo chuta zamo ken un- grung, ..	<sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>1</sup> Gna chang saja kare,	<sup>4</sup> <sup>1</sup> Zabung k, he.
Take it from him, ..	<sup>1</sup> <sup>2</sup> <sup>3</sup> Noo dux kera or pung,	<sup>3</sup> <sup>2</sup> <sup>1</sup> P, hagee na len,	<sup>3</sup> <sup>2</sup> <sup>1</sup> Uroo chee t, hoae.
Take up this, ..	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> No pung tolao,	<sup>1</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> D, heela koltong,	<sup>1</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> Ace tek.
This is my sleeping place, ..	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> Ung yangmig pusrung to,	<sup>5</sup> <sup>4</sup> <sup>2</sup> <sup>1</sup> D, hee gnarung nealsa hin,	<sup>5</sup> <sup>4</sup> <sup>1</sup> <sup>2</sup> <sup>3</sup> Aee gee goojbe polung.
How far is it from this, ..	<sup>1</sup> <sup>2</sup> <sup>3</sup> Zhoo uks te-warik to,	<sup>3</sup> <sup>2</sup> <sup>1</sup> D, hee na t, hagrang chum yot,	<sup>3</sup> <sup>2</sup> <sup>1</sup> Aee che ene wariko nee.
Take it from me, ..	<sup>1</sup> <sup>2</sup> <sup>3</sup> Ung buksh kera,	<sup>3</sup> <sup>2</sup> <sup>1</sup> Gnarung na k, her,	<sup>3</sup> <sup>2</sup> <sup>1</sup> Geo che det.
What is the name of that village, ..	<sup>4</sup> <sup>5</sup> <sup>1</sup> <sup>3</sup> <sup>2</sup> Yo deshung the namung to,	<sup>4</sup> <sup>5</sup> <sup>1</sup> <sup>3</sup> P, hagee yool chee mheen,	<sup>4</sup> <sup>5</sup> <sup>3</sup> <sup>1</sup> Uro deshung meen k, ha.
What load is on your back, ..	<sup>5</sup> <sup>6</sup> <sup>2</sup> <sup>1</sup> Kan pooshting barung t, he to,	<sup>5</sup> <sup>6</sup> <sup>4</sup> <sup>1</sup> K, herung geab la <sup>2</sup> <sup>3</sup> K, hooroo yot,	<sup>1</sup> <sup>5</sup> <sup>6</sup> <sup>4</sup> <sup>1</sup> <sup>2</sup> Gna geab to k, ha barung nee.
Whose house is this, ..	<sup>4</sup> <sup>1</sup> <sup>2</sup> <sup>3</sup> No hats keem to,	<sup>4</sup> <sup>2</sup> <sup>1</sup> <sup>1</sup> D, hee k, hangba-soenda-sooe	<sup>4</sup> <sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> { Ado so keoom ta aee keoom soee.
Where do you stay, ..	<sup>2</sup> <sup>1</sup> <sup>3</sup> { Keena hum neetoon, <sup>2</sup> <sup>1</sup> <sup>3</sup> ka hum busetun,	<sup>2</sup> <sup>1</sup> <sup>3</sup> K, herung gana dutoo,	<sup>2</sup> <sup>1</sup> <sup>3</sup> .. Gnan go pobung.

ENGLISH.	MILCHAN.	B, HOTEĒA OR TARTAR.	T, HEBURSKUD.
What like is the road, <sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>3</sup> <sup>1</sup> <sup>2</sup> Om hales to, ..	<sup>3</sup> <sup>1</sup> <sup>2</sup> .. Lam cheenda yot,	<sup>3</sup> <sup>1</sup> <sup>2</sup> .. Am khunea nee.
Is it an ascent or descent, ... <sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>3</sup> <sup>1</sup> <sup>2</sup> <sup>1</sup> Zhup to tang to,	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>1</sup> .. Gen yot thoor yot,	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>1</sup> .. Tang nee t, hoor nee,
How many stages is Kanum <sup>4</sup> <sup>5</sup> <sup>6</sup>	<sup>6</sup> <sup>5</sup> <sup>3</sup> <sup>4</sup> Zhoo uks Kanum deshung te	<sup>6</sup> <sup>5</sup> <sup>3</sup> <sup>4</sup> <sup>7</sup> Gana Kanum yool shakpo, ..	<sup>6</sup> <sup>5</sup> <sup>3</sup> <sup>4</sup> .. Aee che Kanum deshung
village from this, ... <sup>7</sup> <sup>8</sup>	<sup>7</sup> <sup>8</sup> days road 2	<sup>1</sup> <sup>8</sup> .. Chumgee lam,	<sup>1</sup> <sup>7</sup> <sup>8</sup> <sup>2</sup> .. ene dear am nee.
In how many days shall I <sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>2</sup> <sup>3</sup> <sup>1</sup> <sup>4</sup> <sup>5</sup> Te dear o posheo Tankur	<sup>3</sup> <sup>2</sup> <sup>1</sup> <sup>5</sup> Zhangma chum la Tankur,	<sup>2</sup> <sup>3</sup> <sup>1</sup> <sup>5</sup> <sup>6</sup> .. Ene dear chee Tankur go-
reach Tankur fort, ... <sup>4</sup> <sup>5</sup> <sup>6</sup>	<sup>6</sup> gorung,	<sup>6</sup> <sup>to</sup> <sup>5</sup> .. K, bur la lebin,	<sup>4</sup> .. rung nooptee.
Give me some milk, ... <sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>2</sup> <sup>to</sup> <sup>3</sup> <sup>to</sup> <sup>drunk</sup> <sup>4</sup> <sup>1</sup> Ungo k, heerung toongmig keo,	<sup>2</sup> <sup>to</sup> <sup>3</sup> <sup>4</sup> <sup>1</sup> { Gna la ona t, hoongja-tong-	<sup>2</sup> <sup>to</sup> <sup>3</sup> <sup>4</sup> <sup>1</sup> Geo pel toongnung k, he,
Of what country are you <sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup>	<sup>5</sup> <sup>2</sup> <sup>3</sup> <sup>1</sup> <sup>4</sup> <sup>do</sup> <sup>you</sup> <sup>stay</sup> . Ka hum moolk o-tontosheton,	<sup>5</sup> <sup>2</sup> <sup>village</sup> <sup>1</sup> <sup>6</sup> K, heerung gang yool ge mee	<sup>5</sup> <sup>2</sup> <sup>3</sup> <sup>1</sup> <sup>6</sup> Gnan go moolk ge mee.
native (man,) ... <sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup>	<sup>3</sup> <sup>4</sup> <sup>1</sup> <sup>2</sup> { Yo keem hae-langsheet } langco pangsheet,	<sup>3</sup> <sup>4</sup> <sup>1</sup> <sup>2</sup> D, hee k, hangba sooce chosong	<sup>3</sup> <sup>4</sup> <sup>1</sup> <sup>2</sup> Aee keoom soo soo lenzo.
Who built this house, <sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup>	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> Teta dur to Meeroo,	<sup>4</sup> <sup>1</sup> <sup>2</sup> <sup>3</sup> .. Meeroo cham t, haging yot,	<sup>4</sup> <sup>1</sup> <sup>2</sup> <sup>3</sup> Meeroo ene warko nee.
How far is Meeroo, <sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup>	<sup>1</sup> <sup>2</sup> <sup>1</sup> <sup>2</sup> Ma nek, Ma nee,	<sup>1</sup> <sup>2</sup> Me she,	<sup>1</sup> <sup>2</sup> Ma setec.
I do not understand, <sup>1</sup> <sup>2</sup>	<sup>2</sup> <sup>2</sup> <sup>2</sup> <sup>1</sup> much	<sup>2</sup> Mangbo tangmo,	<sup>2</sup> Bong, k, hutkeo.
It is very cold, ... <sup>1</sup> <sup>2</sup>	<sup>1</sup> <sup>2</sup> Up, har-oshto-lisk to	...	..

ENGLISH.	MILCHAN.	B, HOTEĒA OR TARTAR.	T, HEBURSKUD.
From Soongnum to Manes	<sup>3</sup> Soongnum <sup>2</sup> che <sup>1</sup> Manes	<sup>5</sup> Soongnum na <sup>2</sup> Manes <sup>1</sup> zhang- <sup>6</sup>	<sup>3</sup> Soongnum che <sup>2</sup> Manes.
<sup>4</sup> it is four stages,	<sup>6</sup> days road <sup>7</sup> dear om <sup>4</sup> to, ...	<sup>5</sup> ma zhee lam, ...	<sup>5</sup> pee dear am <sup>7</sup> nce. <sup>4</sup>
You must give,	<sup>1</sup> to give <sup>2</sup> is Rannig dook, ...	<sup>1</sup> Tocha yot, ...	<sup>1</sup> Dabung nce. <sup>2</sup>
There is nothing, something	<sup>1</sup> T, hooch me, ...	<sup>1</sup> Chang met, ...	<sup>1</sup> K, huleo mane. <sup>2</sup>
not, ...	<sup>2</sup> ...	<sup>3</sup> K, hangba na <sup>2</sup> tonne <sup>1</sup> k, hoor, <sup>4</sup>	<sup>3</sup> Keoom un <sup>2</sup> hanga <sup>1</sup> ret. <sup>4</sup>
Having taken it out of the	<sup>1</sup> Keem o totoa kura p, heeo, ...	<sup>3</sup> Chirba-cha, -gea, -Yongdook, <sup>2</sup> is coming	<sup>3</sup> Chirba rugunee.
house, bring it,	<sup>1</sup> It is raining, ...	<sup>3</sup> Gnarung k, heourung t, ha- <sup>2</sup> dook, ...	<sup>3</sup> Gee gnano <sup>2</sup> khooshee <sup>1</sup> ranee.
I am much pleased with you,	<sup>1</sup> you with <sup>2</sup> good <sup>3</sup> bash <sup>4</sup> pleaa- Kanrung dam <sup>5</sup> sure is shee to ...	<sup>2</sup> Ogo p, heela, ...	<sup>2</sup> Oone cheto. <sup>1</sup> from
For your worship,	<sup>1</sup> Liskee sheeden, ...	<sup>2</sup> Tangmo sheen, ...	<sup>2</sup> K, hatkeo soo <sup>1</sup> seechbung. <sup>1</sup> to you to do is
You will die of cold,	<sup>2</sup> Keenoo lannig, ...	<sup>2</sup> Keot pecha hodo, ...	<sup>2</sup> Gnano lennung nce. <sup>1</sup>
You must do, ...	<sup>1</sup> Geetung lannig, ...	<sup>1</sup> Loo lepcha, loo tongzha, ...	<sup>1</sup> Greb k, herbung. <sup>2</sup> does come
To sing a song,	<sup>1</sup> Why has he not come, ...	<sup>1</sup> Cheep, hila- cheela- mayoong, ...	<sup>1</sup> K, hyro ma <sup>2</sup> rano.

Sleep (having slept sit,) ...	<sup>1</sup> 2 Yag yag tosh, ...	..	<sup>1</sup> 2 Neal ne dot, Neal go, ..	..	<sup>1</sup> 2 Goojee po.
Having washed, bring,	<sup>1</sup> 2 3 Chee chee kura, ...	..	<sup>2</sup> 1 3 { T, hoo la k, hila, t, hoo ne } <sup>3</sup> 2 1 3 k, hoor t, hoo chur k, hoor, }	2 1 3 2 1 3 Oorga ret, oorka ret.	
Let it dry, ...	<sup>1</sup> 2 to-day place Charashet, ..	..	<sup>2</sup> 1 2 1 Kam chook, Kamdo chook, ..	2 1 P, ho mat.	
What is you caste,	<sup>1</sup> 2 3 4 Kan the zat to, ..	..	<sup>3</sup> 1 4 2 Keot chee rikh hin, ..	3 1 4 Gnan ka zat.	
Give it to whom it belongs,	<sup>1</sup> 2 3 Hatto ung to no ranuace shet, ..	..	<sup>2</sup> 1 2 1 K, hoee hin te la t, hot pha. }	<sup>2</sup> 1 who is to him give Soee hin wado daee.	
Having made, bring,	<sup>1</sup> 2 3 Lan lan kera, ..	..	<sup>2</sup> 1 3 2 2 3 gee la, ..	2 1 3 Leuga ret,	
Is there oil or not,	<sup>1</sup> 2 3 4 { Telung to mae, Telung } doo madoo, ..	..	<sup>2</sup> 1 1 1 1 Markoo dooga me doog, ..	2 1 3 4 Matee nee la mane.	
Tell me (bring word,) ...	<sup>1</sup> 2 Batung kera, ..	..	<sup>2</sup> 1 Kucha k, hoor, ..	2 1 Kucha re.	
Run (having run go,) ...	<sup>1</sup> 2 3 D, hyat bee, ..	..	<sup>1</sup> 2 Geookh ne song, ..	..	Boetka de.
What are you saying,	<sup>2</sup> 1 4 Kas t, he ringon, }	...	<sup>2</sup> 1 3 K, heourung chee lupchee ...	1 2 3 K, ha ringbung.	
What have you said,	<sup>3</sup> 2 1 Noo den tas, ...	...	<sup>3</sup> 2 1 Dhee khatookla, por, ..	3 2 1 Yooee choopcho tace.	

ENGLISH.	MILCHAN.	B, HOTEAA OR TARTAR.	T, HEBURSKUD.
Do not come again,	<sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>3</sup> <sup>1</sup> <sup>2</sup>	<sup>3</sup> <sup>1</sup> <sup>2</sup>
What shall I do,	<sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>	<sup>1</sup> <sup>3</sup>
It is dry,	<sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>
From whence have you come,	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>4</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>4</sup>
Why has he not obeyed my	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup>
orders,	<sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>
It is burnt,	<sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>
I am not going any where,	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup>
If I come to your house what	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup> <sup>7</sup> <sup>8</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup> <sup>7</sup> <sup>8</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup> <sup>7</sup> <sup>8</sup>
will you give me to eat,	<sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>
Now he has sit down in the	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>4</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup> <sup>4</sup>
house,	<sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>
Please to sit down,	<sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>
Call him,	<sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>
What is he sowing,	<sup>1</sup> <sup>2</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>	<sup>2</sup> <sup>1</sup> <sup>3</sup>





ENGLISH.	MILCHAN.	B, HOTEĀ OR TARTAR.	T, HEBURSKUD.
Have you eat or not, <sub>1</sub> <sup>2</sup>	<sub>1</sub> <sup>2</sup> <sup>1</sup> Zana ma zan, ..	<sub>1</sub> <sup>2</sup> <sup>1</sup> <sup>1</sup> <sup>2</sup> <sup>1</sup> .. Sasong ma sa, sa ma sa,	<sub>1</sub> or <sub>2</sub> <sup>1</sup> Zaga la ma zaga.
Has he eat or not, <sub>1</sub> <sup>2</sup>	... <sub>1</sub> <sup>2</sup> <sup>1</sup> Za ma za, ..	.. Sasong ma sa, .. ..	.. Zaga mae,
This is better, This is best, ... <sub>1</sub> <sup>2</sup>	... } <sub>1</sub> very <sub>3</sub> good <sub>4</sub> <sup>2</sup> ... } Yo up, har dam to,	<sub>1</sub> <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>2</sup> Dhee mangbo gamo yot, ..	.. Yooee bong epo nee.
Drops are falling, <sub>1</sub> <sup>2</sup>	... <sub>1</sub> <sup>2</sup> <sup>2</sup> Oshungbudodoo, lugdodoo, ..	<sub>1</sub> <sup>2</sup> T, hikpa yooantook, ..	.. Chokchee rugunee.

## MILCHAN.

The Substantives seem to be of the neuter gender, unless animals, for which there are either different words, or the sexes are distinguished by the adjectives male and female.

The cases are marked by terminations, and are :—

Nominative,	Keem, a house.
Genitive,	Keem-o, of a house.
Dative,	Keem-o-pung, to, into, for a house.
Accusative,	Keem-pung-en-oon, a house, or on a house.
Ablative,	{ Keem-ung-rung, with a house.
	{ Keem-che-uks-na-no, from a house.
Nominative,	Ung, I, myself.
Genitive,	Ung-o, mine, of me.
Dative,	Ung-o-lo-rung-pung, to, for me.
Accusative,	Ung-rung-pung-en-oon, me, or upon me.
Ablative,	{ Ung-che-duks-buks-na-no, from me.
	{ Ung-dung-rung, with me.

The cases appear to be the same in the plural, but *a* is sometimes added to nouns ending in a consonant, as *Keema*, "houses." *Keemapung*, to "houses," she signifying all, is likewise added to denote the plural, but it is most generally omitted.

The adjectives have no gender, and I have been able to find no degree of comparison, unless *Uphar*, signifying "very," as *Uphar oarik*, "very, more or most distant."

The imperative singular, which is sometimes a substantive, is the root of a verb, and from it the other tenses are formed.

All infinitives end in *mig* or *nig*, and by dropping these terminations you get the imperative singulars, with a few exceptions; *o* added to the singular forms the plural, but if great respect be meant, *en* or *chee*, and often both used instead of *o*.

When there is a vowel before *mig* after that termination, has been dropped for *n*, is sometimes added for the imperative singular, but if that vowel be *a*, *ee* is commonly added, and if *mig* follow an *m* or *n*, these letters are usually changed into *p* or *t*.

Toshmig, to sit,	Kemig, to give,	Beemig, to go.
Tosh, sit thou,	Ken, give thou,	Bee, go thou.
Tosho, sit you,	Keno give you,	Beeo, go you.
Toshen,	{ Kenchee, please to give,	{ Beeochee, please to go.
Toshenchee,		
Tha-tosh, Do not sit.	{ Tha-ken, do not give,	{ Tha-boeo, do not go.
Sanmig, to kill,	Dammig, to pull,	Toamig, } to take up,
Sat, kill thou,	Dap, pull thou,	Toammig, }
Satosano, kill you,	Dapo, pull you,	Toace take up thou,
		Toao, take up you,
		Koon, koot, call thou.
		Koono, kooto, call you.

## PRESENT.

The first person singular of the present tense, is formed by adding " tok, took, tuk, dok or dook," to the imperative singular, and dropping *n*, *p*, *t* or *ee*, if it end in either of these letters.

The 2d person,		by adding		toon, ton, don, doon,	
" 3d "		"		to, ta, too, do, or doo.	
The 1st person plural,		"		te, tesh, de, desh or dish,	
" 2d. "		"		tesh, tish, ten, den, desh, dish,	
" 3d. "		"		tesh, tosh, desh, te or de,	
Toshmig, to sit.		Lanmig, to do.			
Goo or Goos,	Toshetook, or Toshetok,	I sit,	Landook	or	Lanodok,
Kee " Ka,	Toshetoon, "	thou sittest,	Landoon	"	Lanodon,
No " Nos-Zho,	Toshetoo, "	he sits,	Landoo	"	Lanodo,
Kishung,	Toshete, "	we sit,	Lande	"	Lanodesh,
Keena-kees,	Tosheten, "	you sit,	Landen	"	Lanodesh,
No-nogonda,	Toshete, "	they sit,	Lande	"	Lanodish,
Goo,	Ma-toshetuk or Toshetook,	I am not sitting,	Ma lanodok,		
		&c.			I do, thou dost. he does. we do. you do. they do I do not do, &c.
Beemig, to go.		Sanmig, to kill.			
Goo or Goos,	beetook or beetuk,	I go,	Satook	or	Satuk,
Ka " Kas,	beeton " beetun,	thou goest,	Satoon	"	Satun,
No " Nos,	beeto " beeta,	he goes,	Satoo		Sata,
Kishnug,	beete " beetish,	we go,	Sate		Satesh,
Keena,	beeten " beetish,	you go,	Saten		Satesh,
Nogonda,	beete " beetesh,	they go,	Sate		Satesh,
					I kill. thou killest. he kills. we kill. you kill. they kill.

## PERFECT.

The first person singular of the Perfect, is formed by adding "ok, ek, ook or uk," to the imperative singular, if it end in a consonant; but should it be a vowel *k* or *rok* is added.

The 2d person singular by adding a, on, oon, un or after a vowel n or ron,  
 3d " " a or o after a consonant, and k, t, e or ro, after a vowel.  
 1st " plural, e, esh or re,  
 2d " " en or ren,  
 3d " " e, re esh or resh.

Rannmig, to gvie.		Boonmig, to come.		Lannmig, to do.	
Goos rak,	I gave	Book,	I have come,	Lanook or Lanok,	I have done.
Kas ran,	thou gavest,	Boon or booa,	thou,	Lanoon " Lanon,	thou, &c.
Nos rat,	he gave,	Boot or booa,	he,	Lanoo " Lano,	
Kishung ranne,	we gave,	Booc,	we,	Lane " Lanes,	
Kees rannen,	you gave,	Booen,	you,	Lanen,	
Nos ranne,	they gave, [ <i>&amp;c.</i>	Booc,	they,	Lane Lanesh,	
ma rak,	I have not given,			Ma lanook,	I have not done.
Lonnmig, to speak.		Toshmig, to sit.		Sanmig, to kill.	
Goos lorok or lok,	I spoke,	Toshuk or Toshek,	I sat,	Sak or Sanook,	I killed, &c.
Kas loren " lora,	thou, &c.	Toshun,	thou, &c.	San " Sanon,	
Nos lora " lok,		Tosho,		Sat " Sano,	
Kishung lore,, loresh,		Toshe " Toshesh,		Sane,	
Kees loren,		Toshen,		Sanen,	
Nos lore " loresh,		Toshesh " Toshe		Sane,	

The future is the same as the present, unless sometimes in the following instances, where the perfect is used : —  
 Goos rak, shall I give,      Makek, I will not give.  
 Kees lanon, will you do,      Ma book, I will not come, &c.

In the above a great deal depends upon the tone of voice and action.

The following are more common.

Beetena ma been, will you go or not (will you go, or have you not gone.)  
 Rantook ma ranook, shall I give or not (shall I give, or have I not given.)

The perfect is used for the imperfect and pluperfect.

Must is supplied by the infinitive as,

Ungo beemig dook,      I must go, (to me it is to go,)  
 Keeno lanmig dook,      you must do, (to you it is to do,)  
 Nopung ranmig dook, he must give, (&c.)

#### PARTICIPLES.

The present participle is formed by adding *a* to the imperative singular.

Tosha, sitting,

Lona, speaking.

The perfect participle is either the imperative singular alone, or repeated or, *eo*, *keo*, *geo*, or *ka* added to it.

4 Charmig, to dry,

Chargeo, dry,

Tookmig, to break,

Took took, broken or having broken.

4 Cheemig, to wash,

Cheechee, washed,

Beenmig, to burn,

Beetkeo, burnt,

Sanmig, to beat,

Sat Satka,

Satkeo, beaten,

The active verbs are sometimes formed from the perfect participle, with the assistance of Shenmig, to place, Lanmig, to do; and Ranmig, to give.

Sanmig,

Sa-shenmig,

Sa-shet,

Sa-sa-shet,

to beat,

beat thou.

Cheeramig,

Cheera-lanmig,

Cheeralan,

split thou.

to split.

Tongmig,

Tong-ranmig,

Tong ran

Tong-tong ran

to open.

open thou.

- Sa shetok, I beat,  
 Sa shenook, I have beaten. Cheera lanodook, I split,  
 Cheera lanook, I have split.  
 The passive is formed by the auxiliary verbs to be and go.
- Sannmig, to beat.  
 Goo sasa dook, I am beaten.  
 Ka sasa doon, Thou, &c.  
 No sasa doo,  
 Kishung sasade,  
 Kee sasaden,  
 No sa sade,  
 Goo sa beek, I have been beaten,  
 Ka sa or satke been, Thou, &c.  
 No sat or satka beco,
- The tenses might be formed by any of the above terminations, but those only which sound best are used; thus in the verbs Rannmig and Lonnmig, the perfect might be Rank and Lonk, but Ranook, Rak, Lonook, Lorok and Lok are softer, and therefore are in use; after *n*, *g* is sometimes inserted, as Rangook, &c.
- In the tenses of verbs, as well as in whole sentences, the Koonawurees pay the greatest regard to sound; consonants are often separated by *a*, *e* or *o* *l* and *d*, *k* and *g* are interchanged, and *d*, *n*, *p*, *t* are usually placed between two vowels, and as often omitted if one word end with a consonant, and either of these letters follow in the next; thus—Toshe-took and Lanodook, are used instead of Toshtook and Lantook, Chargeo and Satka are softer than Charkeo and Satga, and in the following:
- Nodo, Nopung, to him.  
 Keemo, Keemung, to a house not Keemdo, Keempung.  
 Noduks, Noche, from him but.  
 Keemuks, Keemoduks, Keemoche, never Keemduks, Keemche.  
 Kano, Kalo, to you; are used in place of Kao and Kalo.  
 Sat is the imperative of Sannmig, but Sashet is softer than Satshet, and Chara sehmig is better than Char shemig; many more instances might be given.
- Tong ranotook, I open.  
 Tong rak, I have opened.
- Thasmig, to hear.  
 Thaska took, I am heard.  
 Thaska toon, Thou, &c.  
 Thaska to,  
 Thaska te,  
 Thaska ten,  
 Thaska te,  
 Thas beek, I have been, &c.  
 Thas been,  
 Thas beco,
- Beennmig, to burn.  
 Beetkeo took, I am burned.  
 Beetkeo ton, Thou, &c.  
 Beetkeo to,  
 Beetkeo te,  
 Beetkeo ten,  
 Beetkeo te,  
 Beet or beetkeo-beek, I have, &c.  
 Beet been,  
 Beet beco,
- esh, ish, tesh, tish, in the plural are used respectfully.

## B, HOTEAA or TARTAR.

Like the Milchan the cases of the nouns are distinguished by terminations, and the adjectives have only one degree of Comparison, Mangbo, signifying much, being prefixed.

Nominative,  
Genitive,  
Dative,  
Accusative,  
Ablative,

Yool, a village.  
Yoolge, of a village.  
Yool-roo-la-doo-le, to, for, into a village.  
Yool-la, a village.  
Yool-laroo, with a village.  
Yool-na-soo, from a village.

The plural is the same.

The infinitive of a verb ends in *cha*, *ja*, or *zha*.

The imperative singular is formed by dropping the final terminations, but if the infinitive end in *cha* with a vowel before it, *t* is added ; perhaps it would be more simple if *cha* were written *txha* or *tsha*, as it is pronounced ; if the infinitive be *kcha* or *kja*, *h* is added, after dropping the final terminations, and *e* or *a* is sometimes added to form the imperative singular ; the addition of *o* makes the plural ; and *chee* denotes respect, as in the Milchan.

The infinitive is used for the imperative, but very seldom.

Shokja, to come,  
Shokh, come thou,  
Shokho, come you,  
Shokh chee, please to come,  
Meshokh, do not come,  
Chakcha, to cut,  
Chakh, cut thou, &c.

Docha, to sit,  
Dot, sit thou,  
Doto, sit you,  
Dochee, please to sit,  
Ma dot, do not sit,  
Karzha, to give,  
Kare, give thou.

Cheezha, to wash.  
Chee, wash thou.  
Cheeo, wash you.  
Mechee, do not wash.  
  
Khelzha, to bring.  
Khela, bring thou.

There are two present tenses, the most common is as follows :—

The 1st person singular, by adding *ghan* or *gan* to the imperative singular, or the infinitive is made use of.



The 2d person singular, by adding *ghan*, *gan*, *ghane* or *gane*, or the infinitive.

The 2d	"	"	ghan, gan, ghe or ge, or the infinitive.
1st	"	plural.	ghen or gen, or the infinitive with the addition of <i>n</i> .
2d	"	"	ghen or gen, or the infinitive with the last letter changed into <i>e</i> .
3d	"	"	ghen or gen, or the infinitive, as in the 2d person.

If the infinitive end in *t*, that letter is generally omitted, but it is retained in *docha*, to distinguish it from *dozha*, *g* and *k*, *p* and *b*, *e*, *t* and *d* are interchanged, and *o* is often placed between two consonants; this tense is sometimes used for the future.

	Dozha, to go,		Pecha, to do.	
Gna,	Doghan,	Dogan, I go,	Peka,	I do,
Keot,	Doghane,	Doghan, thou goest,	Pecha,	Thou doest.
Phae,	Doghan,	Doghe, he goes,	Peke, Pecha,	He does.
Net,	Doghen,	We go,	Pechan,	We do.
Keozhuk,	Doghen,	Dozhe you go,	Peche,	You do.
Wateshe,	Doghen,	They go,		They do.
	Me doghan,	I do not go, &c.		
	Docha, to sit,		Songzha, to go; the g is not doubled.	
Gna,	Dotkan,	I sit,	Songzha,	I go.
Keot,	Dotkane,	Thou sittest,	Songzha,	Thou goest.
Phage,	Dotke,	He sits,	Songzha,	He goes.
Net,	Dotken,	We sit,	Songzhan,	We go.
Keozhuk,	Dotken,	You sit,	Songzhe,	You go.
Wateshe,	Dotken,	They sit.	Songzhe,	They go.

The other present is formed as follows:—

1st person singular by adding *oon* or *oong* to the imperative singular.

2d.	"	"	o, oo, ook or n.
3d.	"	"	ook, oon, oong or dook.

1st	plural	oon or oong.	
2d.	"	oon or oong.	
3d.	"	"	
	"	" o, oon or oong or the infinitive with him.	
	Sheezha, to die.	Toongzha, to sing.	
Gna,	Sheeoong, I am dying,	Tongoon,	I am singing.
Keot,	Sheeook, sheeo, sheen, thou, &c.	Tongoo,	Thou, &c.
Phagee,	Sheeook, sheeoong,	Tongoon, Tongodook.	
Net,	Sheeoong,	Tongoon.	
Keazhuk	Sheeoong,	Tongoon,	
Wateshe,	Sheeoong sheeo,	Tongoon, Tongzha hin.	
		Me tongoon,	I am not singing.

## IMPERFECT.

1st person singular imperative alone, or with the addition of <i>a</i>			
2d.	"	"	<i>e</i>
3d.	"	"	"
1st	plural	Imperative alone or with <i>o</i>	
2d.	"	Imperative plural.	
3d.	"	singular.	
	Songzha, to go,	Tacha, to give.	
Gna,	Song, songa, to go,	Tat, I did give.	
Keot,	Song, songe, &c.	Tat, Thou, &c.	
Phagee,	Song,	Tato.	
Net,	Song,	Tat.	

Keozhuk,  
Wateshe,

Songo,  
Song,  
Me song, I did not go.

Tato.  
Tat.

### PERFECT.

The perfect is the imperative singular with the addition of song; throughout *a* is sometimes added to the 1st person singular, &c. to the 2d persons singular and plural.

Phoozha, to go.

Gna Phoosong, I have gone.  
Keot, Phoosong, Thou, &c.  
Phace, Phoosong,  
Net, Phoosong,  
Keozhuk, Phoosong, Phoosong,  
Wateshe, Phoosong,

Tacha, to give.

Tut song, I have given.  
Tat songe, Thou.  
Tat song.  
Tat song.  
Tat songe,  
Tat song,  
Me tatsong, I have not given.

### FUTURE.

The future is formed by adding *en* to the imperative singular, unless in the 2nd and 3rd persons singular, the former of which is by the addition of *ene* and the latter by *e*; after *t* the *en* becomes *oen*.

Zozha, to do.

Gna zoen, I will do.  
Keot zoene, Thou, &c.  
Phace zoe,  
Net zoen,  
Keozhuk zoen,  
Wateshe zoen,

Docha, to sit.  
Dotoen, I will sit.  
Dotoene,  
Dotoe,  
Dotoen,  
Dotoen,  
Dotoen,

## PARTICIPLES.

The present participle is formed by *a*, the perfect by *ka* or *pa*, and the compound perfect by *la*, *chur*, *jur* or *ne* added to the imperative singular.

Docha, to sit.

Dota, sitting,

Dotka, sat,

Dochur, having sat,

T,hoozha, to wash,

T,hooa, washing,

T,hooka, washed,

T,hoone,

T,hoojur

T,hoola,

} Having washed,

P,herzha, to fall.

P,hera, falling.

P,herka pherpa, fallen.

P,herne,

P,herchur,

} having fallen.

In a negative sense the imperative is used at times for all the tenses.

{ I do not,

{ I will not do, or shall I do,

{ I have not done.

Me tat,

{ I do not give.

{ I will not give.

{ I have not given.

The imperative is frequently used with the following verbs, Tongzha, Zerja, Geopcha, and Kozha.

Tonzha,

Tontongzha,

Tontongan,

Tontong,

Tontongson,

Tontongson,

Tontong,

Metontong,

} to turn out,

I turn out,

I did turn out,

I have turned out,

I will turn out,

turn out.

I did not turn out.

Chongzha

Chong geopcha,

Chang geopkan,

Chong geop,

Chong geop song,

Chong geop chee,

Ma chong geop,

} to sell.

I sell.

I did sell.

I have sold.

please to sell.

he will not sell, &c.

Shokzha, .. }

Shok zerja, .. }

Shok zerin, .. }

Shok zersonge, .. }

Shok ma ser, .. }

Zheekcha, ... }

Zheek ko zha, ... }

Ma zheek chee, ... }

Zheek me ko, ... }

&c.

The passive is formed by the perfect participle and the auxiliary verbs, *yozha*, to be ; and *soungzha*, to go ; I have only discovered two tenses.

Chorzha, to hear.

Chorka yoon,

Chorka, yoze, Chorka yot,

Chorka yot, Chorka dook, he is heard, &c.

Chorka yoon, Chorka yot,

Chorka yot, Chorka yoze,

Chorka yot,

Present.

I am heard.

thou heard.

he is heard, &c.

Barzha, to burn.

Barga yoon, I am burned.

Barga yoze.

Barga yot, &c.

PERFECT.

Sat ka song, I have been beaten,

Satka songe &c.

Me satka song, { he has not been beaten,

Satka, me song, }

Barga song, I have been burned.

Barga songe, &c.

THEBURSKUD.

The cases of nouns are :

Nominative,

Genitive,

Dative,

Accusative,

Ablative,

Shung, a horse.

Shunge, shungke, of a horse.

Shung-o-do-to-goon, un-na to, for a horse.

Shung-to chopcho, a horse, upon a horse.

{ Shung-che-chee-soo-un, from a horse.

{ Shung-dung, with a horse.

The plural is the same,

The adjectives have one degree of comparison, Bong, meaning more or most being prefixed.

The infinitives of verbs end in *mung*, *pung* or *bung* ; and the imperative singular is formed as in the other languages

by dropping these terminations, after *a*, *ee* is added, and *a* sometimes follows a consonant; the addition of *o* makes the plural, and *n* after a vowel, or *en* after a consonant, and *chee* denote respect; the infinitive is also occasionally used for the imperative.

Bujabung, to beat.  
 Bujae, beat thou.  
 Bujao, } beat you.  
 Bujao, }

Tha bujaee, do not beat.

Kekshbung, to fall.

Ma keksha, } do not fall.  
 Tha kekshbung, }

Moochamung, to knead.

Moochae, knead thou.

Moochaeo, knead you.

{ Moochae chee, } please to knead.  
 { Moochaeen, }

Reeabung, to fall.

{ Ma reeachee, } do not fall.  
 { The reaeen, }

#### PRESENT.

The present tense, which is also the future, is formed

1st person singular by adding nee, tee, dee, to the imperative.	
2d       "       "	noola, toola, doola, tanla, danla.
3d       "       "	nee, tee, dee, neela, teela, tala, deela, dala.
1st       "       plural	nee, tee, dee.
2d       "       "	no, noo, nun, to, too, tan, do, doo, dan.
3d       "       "	nee, tee, dee.

4 The infinitive is also used for the 1st, 2d and 3d persons singular, if the verb end in *tpung*, *t* and *p* are interchanged  
 c sometimes.

Debung, to go.

Sepung, to know.

Gee denee, debung, I go,

Setee, sepung, I know, &c.

Gnan denoola, debung, Thou goest.

Setoola, setanla.

Uroo deneela, denec, debung, .. he goes,  
 Eneshe denec, .. .. we go,  
 Gnancee she deno, denoo, denan, you go,  
 Urteeshe denec, .. .. they go,  
 Ma denec, .. .. I will not go.

Setee, setala, seteela.  
 Setee,  
 Seto, setoo, setan.  
 Setee.

#### Lenmung, to do.

Gee lendee, lenmung, .. .. I do,  
 Gnan lendoola, lendanla, .. .. thou, &c.  
 Uroo lendee, lendala, lendeela, ..  
 Eneshe lendec, .. ..  
 Gnaneeshe lendo, lendoo, lendun,  
 Urteeshe lendec, .. ..

#### Nootpung, to come.

Noottee, I come.  
 Noottoola, thou, &c.  
 Nootpala.  
 Noottee.  
 Nootpo  
 Noottee.

#### PERFECT OR IMPERFECT.

The person is formed as follows:—

1st person singular by adding	kee	or	gee, to the imperative.
2d	"	ka	or ga.
3d	"	ka	or ga, or the imperative alone.
1st	"	plur,	cho or zo
2d	"	"	cho or zo } or the imperative.
3d	"	"	cho or zo }

#### Dabung, to give.

Gee dagee, I have given.  
 Gnan daga, thou, &c.  
 Uroo daga, daee,

#### Satpung, to kill.

Sakee, I have killed, &c.  
 Satka.  
 Sat, satka.



Enshe dacho, dazo, daee,  
 Gnaneshe dacho, dazo,  
 Urteesho, dazo,

Sachio.  
 Sachio.  
 Sachio.

With *ma*, the perfect is often used as the future and present, as *Ma dagee*, I am not giving, I have not given, I will not give.

The imperative is also used in the same sense, and in asking a question, *Ma daee*, I will not give, &c., daee, did he give, or shall I give.

The present participle is the imperative alone, or with the addition of *a*; the perfect is formed by adding *ka*, and the compound perfect by adding *ka* or *e*.

De, going.

Deke, gone, having gone.

.. ..

Lena, doing.

Lenga, done.

Lenga, lene, having done.

The imperative, present or perfect participles, are sometimes used with the verbs *kherbung*, *tatpung*, and *geon-mung*.

Ploota kherbung, to let go.

Poka tatpung, to sit down.

Gear geoomung, to fear.

The passive is formed by the imperative alone, or with the addition of *ka* or *cha*, and the verbs to be and go.

Gee sacha, satha-nee, I am beaten.

Gnan sacha nec, &c.

Sat, satka degee, I have been beaten.

There is a dialect peculiar to the small district of Zhungram. I believe the words are the same as the Milchan, but the infinitives of the verbs end in *ens*, the following are a few of them:—

To eat, Zaens.

drink, Toongens.

sit, Posens.

give, Khedens.

speak, Chulens.

The dialect spoken in the district of Soomchoo, differs from the others, principally in the tenses of the verbs, but some of the words are likewise different. The following are a few:—

ENGLISH.	SOOMCHOO.	ENGLISH.	SOOMCHOO.	ENGLISH.	SOOMCHOO.
Man, ...	.. Mee.	Dog,	.. K, hoee.	Finger,	.. Branch.
Woman,	.. Esplung.	Cat,	.. Peeshee.	Foot,	.. Bunkun.
Carpenter,	.. Oris.	Monkey,	.. Bundrus.	Back,	.. Geab.
Shoemaker,	.. Chamung.	Mouse,	.. Peeoots.	Hair,	.. Kra.
Blacksmith,	.. Domung.	Snake,	.. Sabas.	Egg,	.. Leelee.
Shepherd,	... Palis.	Hare,	.. Reehong.	Heat,	.. Kochra.
Thief,	.. Chorus.	Fish,	.. Muchus.	Cold,	.. Khutsee.
Ferryman,	.. Turoo.	Bird,	.. Peeach.	Apple,	.. Kooshoo.
Yak,	.. Yak.	Hawk,	.. Paree.	Grape,	.. Gool.
Ass,	.. P, hoch.	Chukor,	.. Kokchera.	Honey,	.. Brangsee.
Horse,	.. Shung.	Pigeon,	.. Pekhra.	Tobacco,	.. Tumak.
Bear,	.. Hom.	Kite,	.. Goldus.	Butter,	.. Mar.
Bull,	.. E'tong.	Bee,	.. Brangsee beelang.	Snuffs,	.. Nusar.
Cow,	.. Rat.	Head,	.. Peeshia.	Oil,	.. Matee.
Sheep,	.. Brang.	Throat,	.. Golung.	Spirits,	.. Rak.
Wedder,	.. Kar.	Tooth,	.. Soa.	Bees' Wax,	.. Seetung.
Mule,	.. T'ceoo.	Tongue,	.. Le.	Coarse Sugar,	.. Gooram.
Goat,	.. La.	Mouth,	.. Akhot.	Milk,	.. Pel.
Female Yak,	.. Breemo.	Beard,	.. Darce,	Musk,	.. Katrung.
Male, between yak } Zofo.		Mustachio,	.. Wasung.	Fine Sugar,	.. Shakrung.
and cow,		Nose,	.. Mor.	Poison,	.. Beeshung.
Female, ditto	Zomo.	Ear,	.. Repung.	T'ea,	.. Cha.
Musk Deer,	.. Roch.	Eye,	.. Mee.	Apricot,	.. Choollee.
Hog,	.. Soorus.	Arm,	.. God.	Walnut,	.. Kat.

ENGLISH.	SOOMCHOO.	ENGLISH.	SOOMCHOO.	ENGLISH.	SOOMCHOO.
Wine,	.. Greeng.	Plough,	.. Halas.	Iron,	.. Chuks.
Sun,	.. Neemook.	Fort,	.. Gorung, Khur.	Brass,	.. Peetul.
Moon,	.. Gulsung.	Flat Roof, ..	.. K,heam.	Lead,	.. Seek.
Star,	.. Karma.	Slanting Roof,	.. Chuprung.	Mercury,	.. Mulchoo.
Cloud,	.. Zhoo.	Field,	.. Ree.	Borax,	.. Challe.
Water,	.. Tee.	Cotton,	.. Rooee.	Sulphur,	.. Gunik.
Snow,	.. Rus.	Wood,	.. Sheeng.	Cannon,	.. Top.
Rain,	.. Mookpa.	Flower,	.. Mentok.	Matchlock,	.. Nal.
River,	.. Sumudrung.	Straw,	.. Boko.	Spear,	.. Burchoo.
Rivulet,	.. Loonpa.	Smoking Pipe,	.. Gungsa.	Bow,	.. Zhoo.
Lightning,	.. Bijil.	Skin for crossing } rivers, .. }	Mushkee.	Arrows,	.. Shim.
Thunder,	.. Goorgooree.	Brass Pot,	.. Lotree.	Shield,	.. D,hal.
Ice,	.. Shanung.	Cloth Tent,	.. Koor.	Sabre,	.. Trooal.
Village,	.. Deshung.	Skin for flour,	.. K,hoolch.	Leaden Ball,	.. Goolee.
House,	.. Keem.	Steel for striking fire,	Mekeha.	Gunpowder,	.. Daroo.
Road,	.. Om.	Rope,	.. T,hakpa.	Fiddle,	.. Dutaree.
Fire,	.. Me.	Iron Chain,	.. Shunglung.	Trumpet,	.. Kunal, runsheeng.
Year,	.. Bursung,	Pair of Scales,	.. Pore.	Wool,	.. Cham.
Day,	.. Ner.	Hooka,	.. Jajree.	Cap,	.. Tepung.
Night,	.. Moonea.	Axe,	.. Lashta, tok,hee.	Shoe,	.. Bulrun.
Month,	.. La.	Adze,	.. Keooch.	Blanket,	.. Neanglook.
Tree,	.. Botung.	Saw,	.. Retur.	Garment of sheep- skin, .. }	Lakpa.
Hill, (large,)	.. Yoee.	Bellows,	.. Sak,hool.	Ditto of Goat's hair,	K,heear.
Range,	.. Gang.	Knife,	.. K,hoots.	Ditto of Blanket,	.. Chooba.
A God,	.. Sat.	Gold,	.. Zung, ser.	Gloves,	.. Goosub.
Lama's Temple,	.. Chokten.	Silver,	.. Mool.	Here,	.. Oea.
Hand Mill,	.. Gotung.				

ENGLISH.	SOOMCHOO.	ENGLISH.	SOOMCHOO.	ENGLISH.	SOOMCHOO.
There, ..	.. Noa.	11	.. Sahud.	To fall, ..	.. Brinjema.
How many, ..	.. Tuche.	12	.. Saneesh.	" beat, ..	.. Koolma.
Yes, ..	.. O.	13	.. Sahoom.	" ask, ..	.. T'hama.
No, ..	.. Mato.	14	.. Sapoo.	" arrive, ..	.. Pusma.
Quickly, ..	.. Hal.	15	.. Sanga.	" give, ..	.. K,hemma.
Below, ..	.. Opung.	16	.. Satoo.	" laugh, ..	.. Wanna.
I, ..	.. Goo.	17	.. Sashooneesh.	" break, ..	.. T'hana.
Thou, ..	.. Ka.	18	.. Sarge.	" dig, ..	.. Kotama.
He, ..	.. Onomee.	19	.. Sagoo.	" go, ..	.. Zhema.
You, ..	.. Georung.	20	.. Neesa.	" speak, ..	.. Chulma.
White, ..	.. Chang.	30	.. Deoneesa.	" fight, ..	.. Matashma.
Black, ..	.. K,hace.	40	.. Neeshneesa.	" dwell, ..	.. Busunma.
Good, ..	.. Epo.	50	.. Dyneesa.	" fear, ..	.. Bema.
Bad, ..	.. Kochung.	60	.. Hoomneesa.	" write, ..	.. Chema.
Large, ..	.. Che.	70	.. Hoomneesa sa.	" read, ..	.. Purusma.
Small, ..	.. Chigich.	80	.. Poonesa.	" ride, ..	.. Shokshma.
1	.. Eet.	90	.. Poonesa sa.	" sleep, ..	.. Neauma.
2	.. Neesh.	100	.. Gea.	" see, ..	.. K,honma.
3	.. Hoom.	1000	.. Tong.	" do, ..	.. Lanma.
4	.. Poo.	The days of the week and months are the same as the Milchan.			.. Greb-lamma.
5	.. Gna.	To kill, ..	.. Sanma.	" cook, ..	.. Lanma.
6	.. Took.	" run, ..	.. Geauma.	" sew, ..	.. Ponna.
7	.. Shooneesh.	" eat, ..	.. Zama.	" bring, ..	.. Leama.
8	.. Ket.	" drink, ..	.. Toongma.	" stay, ..	.. Pusma.
9	.. Goo.	" sit, ..	.. Posma.	" weigh, ..	.. Kearna.
10	.. Sa.			" burn, ..	.. Ronma.
				" drown,	.. Zango zhema.

ENGLISH.	SOOMCHOO.	ENGLISH.	SOOMCHOO.
What is the name of that village, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> What is the name of that village, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> What are you eating, I am going, .. Thou art going, ..	<sup>2</sup> <sup>1</sup> <sup>3</sup> Ka the zatun. Goo zhetok. Ka zhetuna.
How far is it, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> How far is it, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> He is going, ..	<sup>2</sup> <sup>1</sup> <sup>3</sup> No zheto.
Give me to eat, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> Give me to eat, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> I have gone, ..	<sup>2</sup> <sup>1</sup> <sup>3</sup> Goo zherik.
Having broken the wood, bring it, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> Having broken the wood, bring it, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> Thou hast gone, ..	<sup>2</sup> <sup>1</sup> <sup>3</sup> Ka zheo.
Where is your house, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> Where is your house, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> He has gone, Give to him, Give to me, Take it from him. ..	<sup>2</sup> <sup>1</sup> <sup>3</sup> No zhere. No ra k, het. Ungra k, he. Noo da t, hao.
Whose house is this, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> Whose house is this, ...		
Where are you going, ...	<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> Where are you going, ...		

The above languages, are spoken at the following places, Milchan in Utharabees, half of Pundrabees, Rasgramee, Wangpo, Tookpa, Yooshooing, Rarung, and part of Gungel.

Theburskud in Soongnum and She aspa.

Zhungnam in Zhungnam, with the exception of Rarung village. Soomchoo in Soomchoo.

B, hotea or Tartar, in Hungrung and the Tartar villages of Tookpa; this language, with a few slight variations, prevails at Garoo, Mansurmur, and along the banks of the Brahmapootra to Teshoo Loomboo and Lahassa, it is the native tongue of Ludak, to the Northwest of which country it becomes intermixed with the Toorkee or Turkish, which is spoken in Yarkund. Dr. Gilchrist's Orthography has been used.

*Note on the Passes into Hindoostan from the West and North-west, and the use made of them by different Conquerors.*

The following Note was prepared for official use and reference, rather than for the prosecution of literary and scientific researches; the interest attaching to the subject at this juncture, will excuse its publication in this shape, without that full citation of authorities and elaborate comparison of statements, which in a more formal Essay might be expected, and for the complete satisfaction of the learned on controverted points would be indispensable.—H. T. P.

---

The river Indus has always been regarded as the natural boundary of India, but its valley is within that country; the real boundary is the range of mountains that shuts in the elevated plains and arid deserts of Afghanistan.

The Indus, after a course of near 500 miles to the north-west, washing the northern foot of the Himalaya, and fed by tributaries from the north and south, breaks through that chain after receiving the waters of the Gilghit valley from the N. W. The slide of one of the mountains of the pass submerged that valley about a year and a half ago, and the accumulated waters, reopening suddenly the closed passage, produced a most destructive inundation, (the rise at Atuk being no less than sixty feet,) which sent a back stream seventy miles up the Kabool river. The Government wished to have this convulsion of nature examined, and Dr. Jameson was deputed, with the assent of the Sikh government, to follow the river Indus up for the purpose; but the insurrection of the Afghan tribes defeated this intention, and we have consequently no intelligence to be depended upon of any of the passes north of Atuk, where the Kabool river flows into the Indus.\*

\* Mons. Court, an intelligent general of the Sikh army has, however, given the following list of the ferry points of the river above Attock: 1. Bazar Hound; 2. Monari; 3. Pehoor; 4. Nachhee; 5. Kabbel; 6. Chitabha; 7. Amb; 8. Durbund; 9. Chuturbahi; 10. Mabera; 11. Toohara; 12. Morer; 13. Didel; 14. Kamache; 15. Buhar; 16. Pachetlehi; 17. Guendoo; 18. Mateeal; 19. Buttera; 20. Jendial and Manial; 21. Kalchi; 22. Palespatan; 23. Pohogoojee; 24. Koonchir; 25. Jalkoot. We know further that Futeh Khan Vuzeer, carried a force by Durbund and Mozufabad to relieve his brother in Kashmeer, before that valley submitted to Runjeet Singh. Mahmood of Ghuzni also went by the same route into Kashmeer, and from thence made an expedition into Kashghur. These routes, however, are only open for a few months of summer, and are not likely to be chosen by an invading force aiming at the conquest of India.



At Atuk, the Indus is considered as entering the plains of Hindoostan, but it is a mistake to consider the navigation as extending to this point from the sea. The river is a torrent for a hundred miles further to Kalabagh, where it passes through a low range, full of salt mines, that runs across from Kohât to Pinddadur Khan on the Jhilum, and in crossing the Punjab, the route from this latter place to Attock is through a hilly country. From the Indus to Kabool, the ground rises to upwards of 7,000 feet above the sea. The Hindoo Koosh is to the north, and another snowy range, called the Sofed-Koh, to the south of the valley, and the spurs from both meeting at the river, leave successive passes, and beds or basins, of which former the Khyber, from its breadth rather than height, is the most famous. The Julalabad basin is on the other side of the Khyber pass; between it and the fertile valley of Kabool, there are eight other passes, and the road leads away from the bank of the river to the south, because the passage is easier where the spurs join the higher range.

The Soofed Koh, or southern ridge of the Kabool valley, is a spur of the Hindoo Koosh, which, shooting out at a point west of Kabool, divides the sources of that river from the stream that waters Ghuzni, and thence sending one branch southward, (which extends even to the sea,) runs due east to the Indus, and terminates in the Kohât country.

This ridge is crossed about nine miles north of Ghuzni, at an elevation not much exceeding 9,000 feet from the sea, and consequently only 1,000 to 1,200 feet above the level of Kabool and Ghuzni; but it is much more elevated in the eastern branch, south of the Kabool valley, where it is called the *Soofed Koh*, white or snowy mountain, because so seen throughout the year. Close along the southern root of the Sofed Koh, is a road called the Bunghish route, communicating with both Kabool and Ghuzni. It has not yet been explored by any British officer, but was proposed to the troops at Kabool as to be followed on their retirement, in order to prevent their junction with General Sale at Julalabad, who had not submitted. The route was rejected as impassable at the season, (January,) because of the necessity it imposed of crossing the Sofed-Koh.

This route has a communication with Kohât, and with Banoo and Kala Bagh, at which latter place, or a few miles below, the river it follows joins the Indus.



Next below the Bunghish route, is that of the Gomul river from Dera Ismail Khan. This route comes in to the Ghuzni valley from the south-east, and through Zoormut, east of Ghuzni, has a communication also with Kabool.

The Gomul route was followed by the late Lieut. Broadfoot of Engineers, and we have a survey and report upon it.

Dera Deen Punah, below Leyra, is the next point of the Indus, from which there is a known route into Affghanistan. It is on the straight line from Feroozpoor to Kandahar, and the pass is south of the Tukht-i-Suleeman, the highest pinnacle of the Sulimani range. It has yet been traversed by no British officer, but a route is marked in most maps as laid down from native information.\*

Next below Dera Deen Punah, is Dera Ghazee Khan, the routes from which place westward are equally unknown. This tract of country is under the government of Sawun Mul, the Sikh soobah of Mooltan, whose disposition has not been considered sufficiently friendly, to warrant either the use of its passes, or any attempts to improve our intelligence respecting them. Below Dera Ghazee Khan, the Sulimani mountains take a sharp turn westward, away from the Indus, and there is an indent of triangular shape, at the apex of which is the Bolan Pass to Quetta. The low ground is fertile and well watered under the hills, but is separated from the Indus by a sandy Desert of about ten or twelve miles breadth, in which the rivers of Dadur, Lehri, and Gundava lose themselves in the dry season before they reach the great stream. This tract is the valley of Kuchchee.

The notices to be obtained from history of the use made of these passes respectively in the different expeditions into India, are extremely scanty; the historians generally giving only the date of departure from the different capitals, and the places attacked in succession, with a detail of personal adventures and exploits in the actual fights.

Passing over the progress of Moosulman conquest through Khorasan and Transoxania to Ghuzni and kabool, we find Subuktugeen established at those two places, and contending with the Hindoo Raja of Lahore, (Jypal,) for the possession of Lughman. The Hindoo Raja

\* It has been stated, that Lieut. H. Marsh of the Cavalry, came from Kandahar to the Indus by this route, but I have never seen any notice of the line of road followed by this officer.

was the assailant, and suffering from rain, retired from Lughman upon a composition, the surrender of fifty elephants being one of the terms. The Raja, however, was not yet disposed to yield, and returned with a large army of Hindoo allies, stated to have exceeded 100,000 men. Subuktugeen defeated Jypal again in the Lughman or Julalabad valley towards the end of the tenth century of our æra, whereupon the tribes of that valley, and of the Khyber, submitted to the conqueror, and the Lahore authority ended at Peshawur.

Mahmood, the son of Subuktugeen, made twelve expeditions into India; the first ten of which were entirely directed against the Hindoos of the Punjab and Mooltan, and the tenth ended in the final establishment of Moosulman sovereignty at Lahore. Kanouj on the Ganges, and Muthra on the Jumna, were the limits of Mahmood's marches in these expeditions. His twelfth and last expedition took a different direction.

Starting from Ghuzni on the 12th October 1025, A. D., Mahmood reached Mooltan in a month and five days, and there having got together 20,000 camels, he marched across the Desert to Ajmeer, whence he turned south, and taking a place called in *Ferishta*, Nihurwala,\* and in the *Rozut-oossufa* Bhuwara, he reached Somnat on the sea-side close to Patun in Goozrat, in January 1026 A. D. The city and temple were sacked, and Mahmood remained upwards of a year in Goozrat, when his army being weakened by disease and desertions, he found a return by the route he had come impossible. He accordingly marched west to Sindh, and being overtaken by the hot season, suffered exceedingly before he reached Mooltan. In this expedition, and in another immediately following, to punish some Jats of the Mooltan district, he seems to have used the straight road from Ghuzni to Mooltan; viz. that by the Gomul, for he could not otherwise have reached the latter place in a month and five days. None of the historians, however, say by what route he did march on either occasion, the omission of any mention of Kabool, Peshawur, &c. or of other intermediate places, combined with the shortness of the time allowed for the journey; being the proof relied upon for the fact, that he came direct by the Gomul route.

The subsequent expeditions into India from Ghuzni, being in support of the dominion thus established at Lahore, and extended afterwards to Dehli, and even into the Dukhun, were not hostile in their traverse of the passes of Afghanistan.

The overwhelming irruption of Chungeez Khan, is therefore the next event in history to be noticed in connexion with these passes.

Chungeez Khan is said to have brought from Mongolia as many as 700,000 fighting men, and his army must have been immense, for detachments from it made expeditions, exceeding in daring and skill, every thing we read of since the march of Alexander to India. He entered by Toorkistan, where his son Joojee Khan, with an advance guard, fought with such determination the whole army of Mohummed Shah of Kharizm, as to induce that prince to yield the open plain, and betake himself to the defence of his cities and fortresses. The principal seats of this king's dominion were in Mawur-ool-Nuhur, that is, in the country between the Oxus and Jaxartes, (the Amoo and Sir rivers,) but the whole country from Ghuzni and Kabool, to the mouths of the Wolga, owed him fealty and allegiance, direct or tributary.

Chungeez Khan advanced himself to Bokhara, sending two detachments under his sons to take Otrar, the principal city on the Jaxartes on his right, and Khojund and other places in Furghana on his left. He was rejoined by them at Bokhara, after they had reduced all the places on that river, so as to secure that base for future operations. In A. D. 1219, Chungeez reduced and utterly destroyed Bokhara, Samarkund, and Bulkh, and while he proceeded against the last named place, passing by and destroying Turmuz, he detached two of his sons against the capital of Kharizm, then called Orgunj, which they reduced after a long siege of seven months. He had thus the whole line of the Oxus at command. His generals had some years before overrun the whole of Kashghur and Yarkund, and had followed up and slain the chief of the hostile tribes of that region at Sir Kool, the source of the Oxus, so that his flanks were quite secure.

From Samarkund, Chungeez had detached a strong army, stated at 80,000 horse, to follow Mohummed Shah into Persia. This detachment admitted Merv, then a place of great consideration, to a composition, and advanced to Herat. The governor, Khan Malik, submitted, and two of Chungeez Khan's generals, Zena or Juna-

noyan and Suveda Buhadur, received the submission, and turned towards Nyshapoor and Persia. The third who followed the other two was not satisfied, and insisting on the possession of the citadel, stormed the town, but failed in the assault and was killed. From Bulkh, Chungeez hearing of this disaster, despatched Toolee Khan with a large force, who reduced and established governors in both Merv and Herat, and rejoined his father during his siege of Talikan. Julal-ood-deen, son of Mohummed Shah, had by this time retired to Ghuzni, and, uniting in his cause all the Afghan tribes, promised to make head against the Tartars in the difficult field of Afghanistan. Chungeez marched against him from Bulkh by the road of Talikan, which place cost him a siege of seven months. Seeing the importance of cutting off the Afghans from Persia, where Mohummed Shah also threatened again to make head, Chungeez sent a second detachment of 30,000 horse from Talikan to Herat under three new generals. These advanced from Herat to a place called Sagil, by Abool Ghazee Khan, and supposed to be Kandahar, but I rather incline to think it may be Sakhir, the capital of the Ghor country, then a city of great consideration, or if not Sakhir,\* some place on the Helmund, for a river is specifically mentioned. Julal-ood-deen advanced with all the troops of Afghanistan, and giving battle to Chungeez Khan's generals while engaged in this siege, defeated them with great loss and relieved the place. The Afghan chiefs, however, quarrelled about the booty, and one gave the other a box on the ear,† which led to two principal chiefs deserting from Julal-ood-deen's army, one of whom retired to Kurman in Persia, while the other, Khan Malik, went back to Herat. In the mean time, Chungeez Khan had taken Talikan, and advanced to Inderab, which detained him another month, and it was here that he heard of Julal-ood-deen's victory. He immediately advanced by Bameean to Kabool, but lost a favorite grandson, (son of Oghtaee Khan,) at the siege of the former place. Coming suddenly upon Ghuzni, it was yielded to him, and he learned that Julal-ood-deen had made for the Indus river only fifteen days before

\* The Rozut-oos-sufa calls the place Valiban, and says it was on the river Baran. This book is a compilation of high authority made by Ameer Alee Khan, between the years 1444 and 1496 A. D.

† The Rozut-oos-sufa says, a blow of a whip.



he arrived. Thither he was followed by Chungeez with such expedition, as to be overtaken and defeated before he could effect a passage. Julal-ood-deen swam across the river with only one or two attendants in sight of the conqueror, whose admiration was much excited by the feat. The site of this battle, which was the limit of Chungeez Khan's irruption in that direction, is not known, nor the routes by which he and his enemy marched for the river, but they must evidently have been in the line east or south-east of Ghuzni; and the Gomul pass was therefore most probably that followed by Chungeez, while Julal-ood-deen went either by the same, or by that which debouches upon Dera Deen Punah.

For the punishment of Herat, Chungeez now sent a third force of 80,000 horse, which taking the place after an assault of six days, left only sixteen persons alive of the entire population. Chungeez returned northward by Bulkh after his victory on the Indus, but was compelled to send back Oghtae Khan, his fourth son, to quell an insurrection at Ghuzni, and to destroy that city also, which had been saved hitherto, because it had submitted upon capitulation. All these operations were completed in four years, between 1219 and 1222 A. D. inclusive, and this wonderful conqueror returned in the last of these years, in order to complete the conquest of China, which he had effected only as far as the great Yellow River before he entered Kharizm. He died, leaving the remainder to be achieved by his grandson. He was met on his way back by his generals, Juna Noyan and Suveda, who from Herat entered Persia by Nyshapoor, and destroying Toos, Humadan, and all the cities that resisted in the north of Persia as far as Kurdistan, turned round thence by the west of the Caspian, and forcing the Durbund Pass, made good their march to the Wolga, and thence across the Kipchak Desert to Khiva and Kharizm, where Toolee Khan, a son of Chungeez, was firmly established as ruler. As long as history lasts, the astonishment of the world will rest on these achievements, imperfectly as the particulars are known.

We come now to the no less wonderful expeditions of Ameer Tymoor, commonly called in Europe Tamerlane, or Tymoorlung. This conqueror was originally a petty chief of Mawuroonnuhur, but raised himself by the daring and active part he took in the troubles which in his youth distracted that region. Toghluk Tymoor, of the Chungeez

family, was induced by these troubles to invade the country from Kashghur. After a spirited defence, Tymoor and Ameer Hoosein, who were then friends and associates, were driven into Kharizm, but on the retirement of Toghluk, they returned and drove out his son Khoja Ilias. Shortly after the two friends quarrelling, Tymoor defeated and slew Ameer Hoosein, and so became sole master of all the country between the Oxus and Jaxartes. He now made successive inroads into Persia, Russia, (wherein he penetrated to the White Sea, in a latitude at which the sun never sets,) Mongolia, Georgia, and Baghdad. After thirty years of ravage in all directions, he determined on the invasion of Hindoostan, being then upwards of fifty-five years of age. His chiefs at first were averse to this expedition, on the ground, as Tymoor himself quaintly writes in his memoirs, that their race would be lost, and their children would speak Hindee, but he reconciled them to it, and having got possession of Herat and Kabool by a mixture of "*nurmees and gurmee*," mildness and severity, he sent his grandson, Peer Mohammed, eastward from Herat, to prepare the way for an advance to the Indus.

In A. D. 1398, the lower passes of the Sulimani range being forced, Peer Mohammed crossed the Indus, a little below Dera Ghazee Khan, and thence advanced to the siege of Mooltan. In this operation he was occupied six months, during which the rainy season came on, and he suffered very severely, losing most of his horses.

Tymoor himself came by the road of Kabool, and was employed in punishing the Seeah Posh Kafirs of Kohistan, north-east of Kabool, while Peer Mohammed was in the Sulimanee range, as above stated. He followed the tribes on foot, as well from Budukhshan as from the Kabool side, into places quite impassable for cavalry, carrying two horses only for his own use, one of which was killed while being slid down a glacier in a wooden case stuffed with cotton. Returning after this campaign to Samarkund for fresh troops, Tymoor reappeared at Cabool, and from thence took the Bunghish route by Ayrab, ایراب or Haroob, of which place and Ghuzni, he got possession by treachery. From Ayrab he sent his son Meerza Khuleel to Banoo by the route called in the *Rozut-ool-sufa* Kubjughai, (perhaps Koochi,) while he made an excursion himself against a hostile tribe of Afghans, called Burniani or Purniani. He left their capital on the first of Mohur-

rum 801, Hijree, (13th September 1398, A. D.) and came out on the Indus at a fort previously built as a dépôt at Nufur.\* Thence marching rapidly down the Indus to the point where Julal-ood-deen swam across after his defeat, (it is specifically so stated in the *Rozut-ool-sufa*, the best historical authority,) he built a bridge across the river in two days and crossed on the 12th Mohurram, that is in twelve days only from the time of his receiving the submission of the Burniani tribe.

After crossing, Tymoor made directly for the place of confluence of the Jihlum and Chinab, and there reduced a chief, whose capital is described as an island at this point strongly fortified, while he sent a reinforcement to his grandson at Mooltan, and ordered him to join him at Dybalpoor, which lies towards the Sutlej.

Tymoor reducing Talumba, crossed the desert from that place to the old bed of the Beas on the 1st of Suffur of the same year, 13th October 1398, A. D., and on the 7th, captured Gokree or Gourkee: then reducing Ajudia, which yielded and was respected, he effected a junction with his grandson at Dybalpoor, and then prepared to cross the Sutlej, and march on Bhutner in the Desert, where he learned that the Hindoos had collected as in a place of security.

Bhutner is at least sixty, some say ninety miles from the nearest point of the Sutlej, with a waterless Desert for the whole distance. Tymoor, however, made the march in one night with the bulk of his cavalry, surprising there a large store of cattle and supplies that had been collected in full reliance upon the impassability of the Desert.

After massacring the whole population of Bhutner, Tymoor went by Sumana to Delhi, which he sacked. Thence he crossed to the Ganges, and entering the Sewalik or lower range at Hurdwar, carried his army back through the mountains to Jummoo and Kashmeer, and thence to Kabool by the Khyber Pass; thus safely reconveying his enormous booty to Samarkund, where he rested only sufficiently long to prepare for his great expedition westward against Ildrim Bayuzeed.

The invasions of Babir and Nadir Shah present no peculiarities in the routes taken. Babir was established as Sooltan of Kabool for

\* This may be Bukur or Nuker. There is a place of the former name at this part of the Indus, but it is on the wrong side of the river.



more than twenty years before he made any attempt on India, and then he was invited by the rebellious chief of Lahore, who aided in his first advance to Delhi. He always used the same direct route, and early established a garrison and depôt at Sirhind, in aid of his expeditions. Nadir Shah having established his authority in Persia, took Herat after an eight months' siege, and thence advanced to Kandahar, claiming these as cities of Persia. From Kandahar he advanced by Ghuzni to Kabool, having conciliated the Ghiljie tribes, who had cause of offence against Delhi for neglect in the payment of certain customary stipends. In his march from Kabool, he was unopposed, until he crossed the Sutlej, owing to the distractions and intrigues which then rent the court of Delhi. The battle which opened the way to Delhi was fought at Kurnal, and Mohummud Shah thence carried Nadir Shah to his capital as a friend or ally. The invader returned across the Punjab unopposed as he had come, with the plunder of the palace and capital of the Moghul emperor in his train.

Ahmed Shah, in all his expeditions, seems to have followed the same route, preferring it apparently on account of the water and forage which is always to be obtained in plenty at the foot of mountain ranges of sufficient elevation, and having garrisons of his own, or of friendly chiefs at Atuk, Lahore, and Sirhind. The march of Nadir Shah is thus the last that can be called an invasion for purposes of conquest.

This notice, however, of the routes and passes into India that have been followed by different conquerors would obviously be incomplete, if the wonderful expedition of Alexander were altogether omitted. It has been reserved for last mention, that the reader may have the benefit of the story of after-expeditions, to assist in the determination of the line of this earliest—the Greek historians having left its course and details somewhat obscure.

The compilation of Arrian is the record of best authority which we possess of the military operations and marches of Alexander; for Quintus Curtius supplies only some fuller details of personal adventures, and a very few additional names. Arrian's seven chapters on Alexander's Expedition are based, as the author states, on the notes of Ptolemy and Aristobulus, who both accompanied the army throughout. His descriptions are sufficiently accurate to enable us, with the lights recently

thrown upon the geography of the countries traversed, to identify most of the principal rivers and places named ; but there is a sad want of dates and distances in Arrian's narrative, and even the seasons of many of the operations, and the number of months and years occupied in them, have to be guessed from circumstances. On the whole, however, Arrian is a more sure guide in regard to this expedition than any other author of antiquity, and but for the changes of names usual in the Greek version of oriental appellatives, as well as those incident to the course of events in twenty centuries, there would be less difficulty in following him than the Persian and Turkish historians of later expeditions.

After the victory of Gaugamela, in the province of Arbela,\* which was gained in October 331, B. C.,† Alexander marched first to Babylon, and then to Susa and Persepolis. The ruins of both Persian capitals have been fully traced and explored, the former is near Shoostur, and the latter about 100 miles north-east of Shiraz. These royal cities Alexander sacked, and then collecting all the camels and beasts of burthen of Lower Persia, he followed Darius to Isfahan, (Ecbatana),‡ the capital of Media, at the time of this expedition. Hearing however of Darius's flight towards Bactria, he took himself with a light division the eastern route by Yezd to Tabas, said to be the last town of the Parætaceni, (half way between Yezd and Mushud.) Finding there that he could not overtake the fugitive king before he passed the

\* Arbela appears to have been a city, the head-quarter town of a district.

† Arrian gives three dates, one of this battle, a second of the death of Darius, and the third of the battle with Porus. This last however is erroneous.

‡ There is a great controversy amongst the learned as to whether Hamadan or Isfahan is the Ecbatana, capital of Media, through which Darius fled, and at which Alexander made his arrangements for the Bactrian campaign. I think it not at all improbable that both bore the name, but if the resources of Darius lay in Bactria, it is very unlikely that he and Bessus should have retired by Hamadan, and the evident line of advance from Persepolis, which is near Sheeraz, was Isfahan. The Parætaceni also lay to the right, and the site of Tabas half-way between Yezd and Mushud, would show, if we assume the flight of Darius and pursuit of Alexander to have taken this direction, that the latter attempted by that route to cut off Darius from Bactria, while his main army advanced by Isfahan. Tabas is named by Quintus Curtius as the limit of Alexander's pursuit towards Bactria prior to the reorganization of the army at Ecbatana, but by a strange confusion he places the death of Darius in this flight from Ecbatana, whereas it clearly did not occur till next season. The pursuit from Hyrcania and the Elburz mountains may, however, have taken a south-westerly direction to Tabas, so as to be that referred to by Quintus Curtius, which would leave doubtful the previous march on the same place.

mountains, Alexander returned to Ecbatana, (Isfahan,) and there rejoining his main army, employed the winter in reorganizing his troops, and dismissing homeward those Greeks whose time of service was expired. This effected, early in the spring of 330, B. C. Alexander crossed the Elburz mountains\* at the pass near Tehran, called that of Dumavund, and formed his army in two divisions, employing one of them in reducing the Mardi, a poor and semi-barbarous race, who occupied a tract of country between the Elboorz range and the Caspian, while the other was destined to operate northward up the eastern shore of the Caspian against Hyrcania. With this latter went Alexander, his reason for reducing this wild country being that a body of Greek mercenaries had retired thither. Hearing, however, while his army was crossing the Elburz, that Darius was in force at no great distance, he countermarched and formed a light division with which he went in person to attack him.

The Persian king, assisted by Bessus and the chiefs of Bactria and Darangia, (Seestan) had appeared with an army towards Mushhud,† but refused to abide another battle, and fled as the Greek force approached. In this flight Darius was first deposed and made prisoner, and then slain, and Bessus assuming the royal title, fled towards Bulkh in Bactria. This was in the month of July 330 B. C. and, if Quintus Curtius is right in naming Tabas as the place of the assassination, the flight must have taken a southerly direction from near Mushhud

\* The pass is called in Arrian, the Caspian gates, and Ragæa is placed near it. D'Anville's map of the ancient world gives precisely the locality of Dumavund for this pass. Darius's flight cannot have taken the line of the west shore of the Caspian, so as to pass the Durband Caspian gates.

† There is much confusion in this part of Arrian's narrative. He mentions the reorganization of the army and many arrangements made at Ecbatana, but leaves it to be supposed that these were operations of a day or two, and that the pursuit of Darius to Ragæ and the Caspian gates was immediately taken up. But there is a winter intervening between Alexander's march to Ecbatana and the campaign, in the course of which Darius was deposed and assassinated: this season therefore was evidently devoted to the reorganization of the army, and if Alexander did follow Darius to Ragæ in 331 B. C., it was a mere excursion at the end of the season, not a continuance or renewal of the campaign. Dr. Thirlwall has been misled by not allowing for a winter here. He supposes that season to have been occupied in the operations near Persepolis. The date given by Arrian for Darius's death, compared with that of the battle of Arbela, and the stated military, and civil arrangements made at Ecbatana, prove the manner of the campaign.

or Abbasabad, which, as the Seestan Satrap was the ally of Bessus, is not impossible. Alexander returned, according to Arrian, with the body of Darius, and crossing the Elburz range to the river Atruk, finished the conquest of Mardia and Hyrcania, (Mazenderan and Gheelan.) This effected, he took the direct route to the country of the Arii. The capital of Aria at that time is called by Arrian Susia, probably the Hellenism of Subza or Subzawar,\* Herat was not in existence, but is supposed to be on the site of the city or fort erected by Alexander afterwards to control the Arians. Alexander established a Persian governor at Susia, and returned northwards to pass into Bactria after Bessus, by the routes probably of Merv or Mymura. The Grecian king, however, had no sooner turned his back on the Arian country, than the Persian governor revolted, and having overpowered the detachment left with him in Subzawar, retired to make head at Artakaona amongst the mountains east of Herat. This brought the Grecian army back in haste. Artakaona† is a place written six ways, but which probably will be the Greek version of Oordoo Khan, a common name. Sakhir, the capital of the Ghorians at the head of the Kashk river, is a site well suited for a stronghold of refuge, and the Oordoo Khan or Artakhan intended, will probably have been near it.

Alexander followed thither with a light force, making a rapid march of 600 stadia in two days, while the bulk of his army returned southward more leisurely, and moved down to the Pontus, or inland sea; into which the Helmund discharges itself. Artakhan was evacuated on his approach, whereupon Alexander turned southward also, and the Persian governor of the southern districts, called Zarangai or Drangæ, (Seestan,) having fled eastward to the Indus, Alexander returned again into the mountains and remained some time there, while he built the fort before-mentioned on the site of Herat to check the Arrians. Here he received the submission of the tribes of the southern

\* Dr. Thirlwall supposes this Susia to be Toos, the ruins of which have been traced about seventeen miles NNW. of Mushhud, but Toos would be in Parthia, and not in Aria, as thus situated

† All the Persian poems and traditions mention *Astakhar*, as the place whence Alexander marched towards India, but the Astakhar of the Shahnama is the capital of Persia. The great Roostum was a native of Seestan.



districts as far as Kandahar in Arachotia,\* but it does not appear that he went thither; on the contrary at a late period of the year 330, B. C. he made the passage over the high ridges between Herat and the Kabool valley, suffering much from cold on the march, and then at the junction of the Punjshuhur and Koh-damun rivers, in the plain of Beghram, near Charikar, he founded the city of Alexandria *apud Caucasum*, about which there has been so much dispute. Its identity with the Beghram ruins has been established in a late† essay of Major Rawlinson, now at Kandahar, and the whole story of Arrian confirms the site. Here Alexander wintered, and at the first opening of spring in the following year, 329 B. C., crossed the Hindoo Koosh to attack Bessus. I consider it most probable that the passage was made from Charikar by the Gorebund or Purwandura Passes, for Drapsacus, which was attacked immediately after the traverse, was evidently the present Indrab, the fortress which gave so much trouble to Chungeez Khan.

The immediate effect of this line of operation was to drive Bessus out of the whole country between the Oxus and Hindoo Koosh, and to

\* Arrian is cited as authority for Alexander's having marched by Kandahar to Kabool, and by Bamian to Bulkh, but Arrian only says the Arachotians submitted, not that Alexander ever went into their country. His words are *Ταυτα δὲ διαπρα-  
ξαμένος προηει ὡς ἐπὶ Βακτρα τε καὶ Βησσόν, Δραγγας τε καὶ  
Δραγωγούς ἐν τῇ παροδῷ παρασησαμένος. Παρεσησατο δὲ καὶ  
τοὺς Ἀραχωτοὺς καὶ σατραπὴν κατέστησεν ἐπ' αὐτοῖς Μένωνα.  
Ἐπηλθε δὲ καὶ τῶν Ἰνδῶν τοὺς προσχωροὺς Ἀραχωτοῖς. Ξυμ-  
παντα δὲ ταυτα ἔθνη δια χιονος δὲ πολλης, καὶ ξυν ἀπορία &c.*

“ Having finished these things, he set off for Bactria and Bessus, in the route having established his authority over the Drangæ and Dragogi; he also established his authority over the Arachoti, and appointed Menon their Satrap. He came then into the country of the Indians, bordering on that of the Arachoti, and all these nations he reached through much snow, and in great want of necessary supplies, and with much suffering to the troops.” This shews he passed through the Huzara country north of the open plains of Seestan and Kandahar, for in crossing them to the Kabool valley even in October, his army would suffer from extreme cold. He crossed apparently by the route, and in the season, when Babur suffered so much on his return from Herat to Kabool. If the march was made in the season when there is snow at Kandahar, and by that route, the passage to Ghuzni, and especially over the mountains between Ghuzni and Kabool, must have been quite closed.

† I much regret never having met with this essay, and doubt not that it would have thrown light on many points which are still obscure.

cut him off from retreat into Kashghur. He had fomented another insurrection at Herat, and sent 2,000 horse to support it, while Alexander was making the Huzara passage, prior to wintering in the Kabool valley; but this was defeated by the garrison left in the new city, aided by a detachment sent back, without requiring Alexander's presence. Bessus therefore on the passage of the Hindoo Koosh being effected, retired at once to the mountains of Sogdiana, Nautaka, supposed to be Karshee or Nukhshab, being the position he took up to watch the further course of events. Alexander took Bulkh and all the country south of the Oxus, and established six stations according to Quintus Curtius to guard and command the passes of the mountains. He then crossed the Oxus on skins, at a point where the river was rapid and deep, and had a sandy bottom, which is the character of all the fords about Bulkh. Bessus was betrayed and given up before Alexander reached his position at Karshee, and thereupon Alexander followed up his success by seizing Markanda, (Samarkund), and he thence continued his march, meeting with no serious opposition, to the Sir or Jaxartes, called by Arrian the Eastern Tanais. He crossed this river to punish the Scythian cavalry, who had inflicted on him some loss as they retired before him through Sogdiana. Alexander fought on the other side of the Sir a sharp cavalry action, in which he was wounded severely by an arrow in the leg, his fibula or smaller leg bone being broken. He gained the victory, however, and dislodged the enemy from a mountain supposed to be that opposite to Khojund, with a loss stated at 20,000 men.

Alexander remained sometime on the Jaxartes, and commenced building a city or fort near Khojund. He at the same time summoned all the tribes to a general convention to be held at Zariaspe, (Huzarasp on the Oxus,) in the coming winter; but while he was so occupied in advance, the nomade tribes of the Kizil-koom desert and Lower Jaxartes, rose on the garrisons he had left in his rear, and under Spitamenes, an active and energetic partisan, besieged Markanda. Alexander on the first news of the insurrection retraced his steps towards Markanda, reducing all the cities on his way without difficulty until he came to Cyropolis, which is probably Kesh, or Shuhur Subz, where Persian tradition fixes the birth of the great Cyrus. This siege proved difficult, for the city is described as large and

populous, the walls strong and high, and the inhabitants warlike. He mastered it at length, effecting an entrance by the river bed, during a season of drought, and then returned to secure his posts on the Jaxartes, sending a division to strengthen Markanda. While he was encamped on the banks of this river, seeking to inspire the Scythians with a dread of his power, the division of his army sent for the relief of Markanda, was defeated and utterly destroyed on the banks of the Zurafshan\* river by Spitamenes. This called Alexander back to Samarkund, and after ravaging the valley of the Zurafshan, he moved to Huzarasp, where he had proposed to winter, in order to hold the convention before proclaimed, and to confirm by policy, the influence his victories had established. It was here that Clitus was slain, and that Scythians from the western Tanais (the Wolga or Don) came, and endeavoured to persuade Alexander to attempt the passage that way back to Europe; but Alexander excused himself, saying, he must first conquer India, and then would come by the route of Europe round that way to the Tanais and Huzarasp.†

Early in the spring of 328, B. C. while the snow was still on the ground, Alexander took the field again, for reduction of the cities of Sogdiana, which still held for Spitamenes. His army marched in five divisions, Alexander heading that which took the mountain road by Samarkund. Soon after the march, Huzarasp was attempted by surprise, but saved by its garrison. Spitamenes then made a gallant attack on the left division led by Cœnus, which skirted the desert, and had marched apparently for relief of the garrisons of the Jaxartes: it was met by Spitamenes while countermarching for the defence of Huzarasp, consequently on the attack of that post. Being defeated by

\* Arrian calls the river of Markanda, Polytimetus, the much-valued, Zurafshan is gold scattering. The description of its losing itself in the sands of the Bokhara Desert confirms the identity, if the name and other circumstances had left any doubt on the subject.

† The site of Huzarasp, no less than the similarity of name, proves it to be the Zariaspe referred to. It is on the Oxus in the advanced position suited to the convocation, and is exactly the place the Scythians of the Steppes towards the Wolga might be expected to come to, while the river being navigable gave all the desired facilities for forming a dépôt. The next year's march back to Samarkund establishes the correctness of this position, and it is further confirmed by the communications held at it with the Chorasmien, (Kharizmees.) Kheeva and Orgunj, the capitals of Kharizm, being only a few marches down the stream of the Oxus. The limits of ancient Bactria might well extend down the Oxus as far as Huzarasp.



Cœnus, Spitamenes was deserted by his followers, who hearing that Alexander himself also was approaching, cut off their chief's head, and sent it as an atonement for their own transgressions.

Being thus rid of this active enemy, Alexander had leisure to reduce the mountain forts of Soghdiana, lying between the sources of the Jaxartes and the Desert west of Samarkund; and the season being occupied in establishing posts and settling this country, he wintered again north of the Oxus at Karshee, and there received reports from all the Governors and Satraps he had left in the conquered territories.

In the spring of 327, B. C., while the snow was yet heavy on the ground, Alexander commenced his march through the mountains towards Bulkh, reducing the places that refused to submit. He was in this march much distressed for provisions, but every fort had its depôt, and the store of one of these, held by a chief named Chorienes, furnished a two months' supply to the whole army at a time when it was in great want. As the spring advanced, Alexander taking the route of Bulkh, approached the Hindoo Koosh again, and crossed it to the city he had built in the plain of Beghram. There he was met by Taxiles, an Indian chief, whose capital (Taxila) was across the Indus. This chief urged an advance in that direction, with the design of bringing to subjection a rival chief of Peucilaotis, supposed to be in the country near Peshawur. Alexander sent with this Indian chief Hephæstion, and the bulk of his army, marching them by the route of the Cophenes river. Under the Raja's guidance, Hephæstion passed without obstruction downwards, apparently by the Khyber, and having captured Peucilaotis, set himself with the aid of Taxiles, to build a bridge at Attuk. Alexander himself was determined to reduce the mountainous tract of country lying between the Cophenes and the Hindoo Koosh, and the number of rivers passed, and description of each given by Arrian, correspond exactly with what we now know to be in existence in that tract, though the names of several places and of races of people differ as might be expected.

Alexander from Beghram passed down the Punj-shushur river, and crossed the Tagao with difficulty, then reducing two cities, the second called Andaka, he came to the river Euaspla, (Alishung), where the Aspîi were in arms. The enemy fled to the mountains, and Alexander followed to their stronghold, finding the capital which Arrian calls

Arigæum, deserted and in ruins. There was a very severe battle fought here, which ended in the complete defeat of the natives, and the capture of 230,000 head of cattle, remarked as of very fine breed. Thence Alexander marched against the Assaceni, passing through the territory of the Guræi, (Lughman,) and crossing the river of that name (now the Koner or Kama,) which Arrian states as rapid, and difficult of passage, because of the large round slippery stones in its bed. On the eastern banks of the Koner river, was the city of Massaga, somewhere near Pooshoot, which was captured with great difficulty; and some mercenaries of the garrison, stated to have been of Indian race, were incorporated with the Grecian army.

From Massaga, Alexander marched to Bazira, without crossing another river, shewing evidently, that Bazira must be the present Bajaor. He expected it to be surrendered without a siege, but was disappointed, and hearing that relief was coming from Ora, which is probably the present Punjkora, he marched with his main army first against that place, leaving a detachment before Bazira to watch it. Ora being reduced, the inhabitants of Bazira evacuated the city, and took refuge in the difficult post of mount Aornus, under which lay Embolima, which Alexander occupied. This mountain will probably be that to the south of Bajaor, and between it and the Kabool river. The dislodgement of the enemy proved a matter of extreme difficulty, because of the steep ascent of the mountain. Ptolemy, however, with some light troops effected and made good a lodgment on the ridge, aided by an attack from which, the rock was at last stormed and carried.

After this, Alexander marched north to Dyrta, (which is evidently the present Dhyr,) because he heard that the king of the Assaceni was making head in the upper part of the valley of the Koner, that is, in Chitral and Little Kashghur. From hence he crossed to the Indus by a route, which required the labour of his whole army to render at all passable. He arrived on the bank of that river at a place where there was a forest, from which he cut timber to make rafts and boats, with which he floated down to Attuk, where the bridge of boats had already been built for him by Hephæstion and Taxiles. In the country between the Kophenes and Indus, Nysa, the city of Bacchus, is said to be situated, from whence Alexander received a deputation. Its site

has not been ascertained, though, as ivy grew there, it must have been high in the mountains.

Crossing the Indus by this bridge, Alexander went with Taxiles to Taxila, the capital of the latter, which probably was near the present Tatta, about one march from the river. Thence he prosecuted his march to the Hydaspes, now the Jihlum, on the other side of which Porus was encamped with a large Indian army. To aid the passage, Alexander sent back to the Indus for some of the boats or rafts he had built, and causing them to be brought over by land, amused Porus for some days by marching up and down with great parade, as if he was about immediately to force a passage.

Arrian tells us this occurred in the rains when the river was much swollen, and that Alexander was thinking of waiting for the cold season when the waters would subside. After some days, however, finding a favorable rock to conceal his preparations, he launched his boats and effected a passage at a place where there were several alluvial islands. Porus was then defeated and made prisoner. Arrian specifically tells us, that this battle was fought in the month Munychion, which is the last but two of the Greek year, beginning in July. April and May would therefore be the time of the year indicated, but this is not reconcilable with the fact of the rains having set in to swell the stream. The date assigned by Dr. Vincent and all later commentators, is August 327, B. C. which, supposing Alexander to have crossed the Hindoo Koosh on the first opening of the passage at the end of March, or in the beginning of April, gives evidence of a celerity of movement, and rapidity of conquest to excite our wonder.

After the defeat of Porus, Alexander captured Sangala on the Hydraotes, supposed to be near Lahore, and then marched to the Sutlej at a spot below its junction with the Hyphasis (Beas) where historians say, he built pillars or altars to mark the limit of his conquests. Apollonius Tyaneus is made by Philostratus to say, that he saw them in the first century of the Christian æra, and that a king, Phraotes, of Greek race, and who conversed freely with him in Greek, was then reigning in the Punjab, and master of the country as far west as the Kabool valley. These altars however, though sought for with much avidity, have never yet been found by modern travellers. The remonstrances of the Macedonian troops, and their refusal to march further, created the im-

mediate necessity for Alexander's return. But preparation had antecedently been made for it by arrangements to construct a large fleet of boats on the Hydaspes or Jihlum. These were completed by the end of the rains of 327 B. C., and Alexander then commenced a march down the Punjab and banks of the Indus, in the hope of finding a ready way back to Persia by land or sea from its mouths.

On the way down, he was troubled by the spirited resistance of the Malli and Oxydracæ, the former supposed to be settled near Mooltan, and the latter a race occupying Kuchchee. In the operations against these, Alexander received a wound with an arrow in the right breast, which very nearly proved mortal, and much alarmed his faithful troops. He recovered, however, and having reduced the Sindians, made the following arrangements at Pattala, now Tatta, for return. Craterus he sent by Kuchchee and the Bolan Pass with the bulk of his army, and the heavy baggage. Nearchus with the fleet was to skirt the coast, and so make for the Persian Gulf. Alexander himself with a lightly equipped force took the route through Beloochistan, intending to keep in communication with the fleet.

This march proved the most disastrous operation in which Alexander had yet engaged; from first to last, he suffered extremely from heat, and from the want of fresh water, and the distress his army encountered is represented as almost beyond endurance, and the mortality in consequence was very great.

Dr. Vincent states, the march down from Nicæa on the Jihlum, where the battle with Porus was fought, to Pattala or Tatta, at the head of the Indus Delta, to have occupied nine months; if it was commenced, therefore, in October 327, it will have been July 326, B. C. before he reached that city: and so far Arrian bears out this date, for he says the Etesian winds, that is the monsoon, prevented the voyage by sea at the time of Alexander being in Sindh. Having made arrangements for establishing depôts near the sea-coast, and for digging wells to supply the fleet and his own army with fresh water at the first stages along the coast, Alexander set off on his march of return in September 326, B. C., directing Nearchus to follow as soon as the season was favorable. The circumstances of this voyage have been so accurately developed by Dr. Vincent, that it is only necessary to refer to them very shortly. Nearchus left the Indus a month



after Alexander, but some time still before the monsoon had properly changed: he was in consequence compelled to make for the coast and disembark, and so consumed all his provisions by the time he reached the country of the Oritæ in Mekran. Here, however, Alexander had left a dépôt under Leonatus, prior to striking off from the coast to skirt the arid desert of Gedroos. From the borders of the Oritæ to the capital of Gedroos, called by Arrian "*Pura*," Alexander's march was one of sixty days, with always a very scanty supply of water, and that generally brackish. *Pura* is probably the Bunpoor of modern maps, which is in the same longitude with the Hamoon, or sea in which the *Helmund* terminates. Here Alexander remained some time to refresh, and receiving a convoy from Lower Persia, renewed his march through *Karmania*, (*Kurman*,) meeting every where, as he approached the limits of civilization, both welcome and abundance. Either at or near *Kurman* he met *Craterus*, who had safely brought back the heavy baggage and bulk of the army by the *Bolan* Pass and by *Kandahar*, but by what route from *Seistan*, is no where mentioned.

The expedition ended by Alexander's return to *Persepolis* or *Pasar-gada*, near *Shiraz*, with a light division, while he sent *Hephæstion* to skirt the coast and relieve *Nearchus*. The united army of Alexander reached *Susa* about the end of February 325 B. C., just five years from the period of its march from *Ecbatana* in pursuit of *Darius*, and five and a half from the date of the victory of *Gaugamela* or *Arbela*.

It is difficult to account for the apparent facility with which Alexander carried his large armies over tracts now deemed impassable for more than caravans. We must allow something for the habit of dealing as slaves with the entire population of a city or province reduced after resistance in arms. This gave means of transport over mountains, such as are not commanded in the strategic operations of the present day. But, after making every allowance for the free command and use of the persons and properties of the entire population subdued, the traverse of the deserts would not have been possible, if in those days they had been in the same condition as they are at present found. Their existence is identified, but their dimensions were then probably much smaller, for it is consistent with the experience of modern philosophy, that sandy deserts progressively increase in size, as well through the ear-

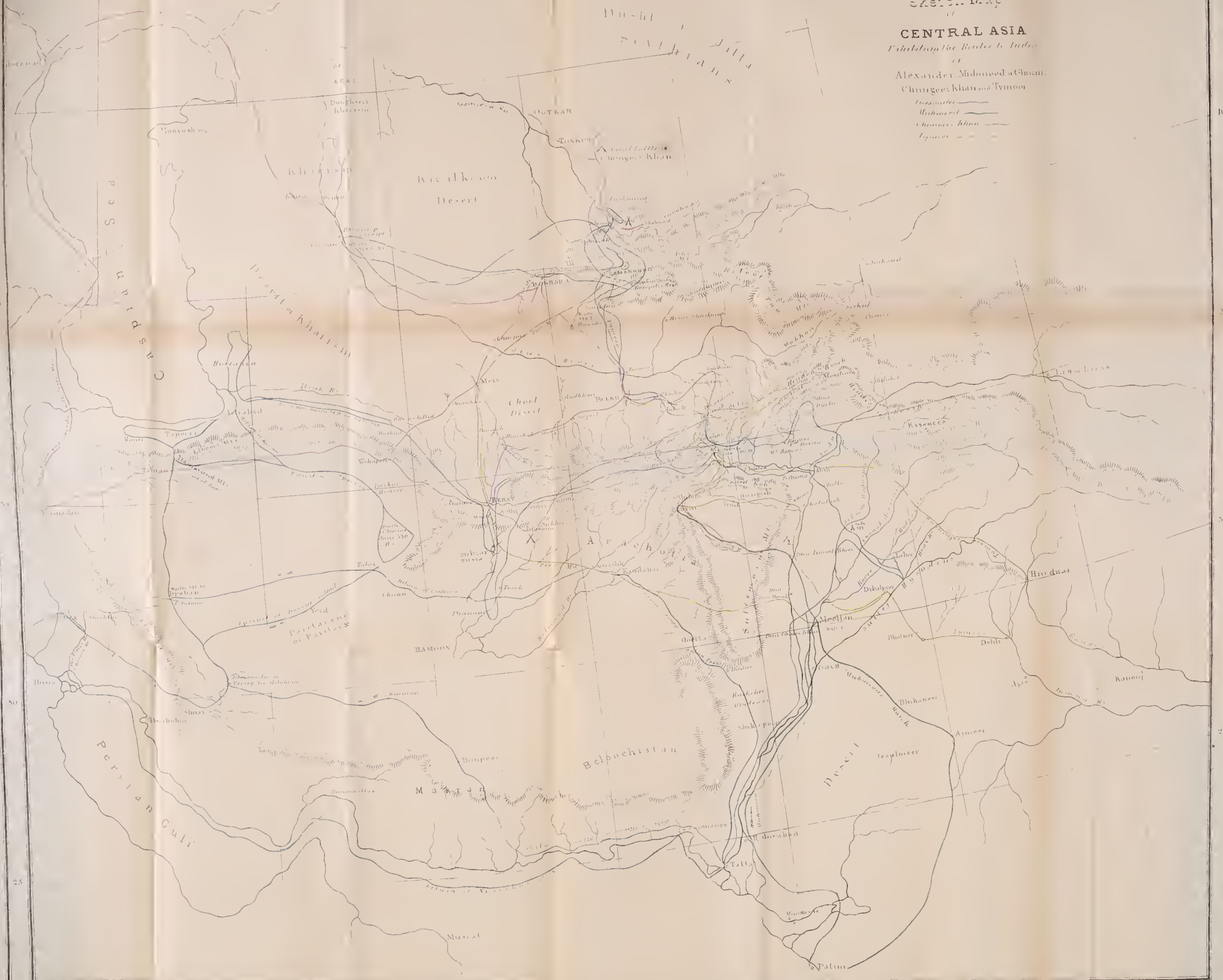
Sketch Map

CENTRAL ASIA

Indicating the Routes to India

Alexander, Mahmood a Ghani,  
Chingeez Khan and Tymeer

Caravan routes  
Mahomed  
Chingeez Khan  
Tymeer







lier soakage of the waters, which give fertility to their borders, as by the effect of wind in carrying and depositing sand, and so producing barrenness over tracts which before owned a fertile soil. With every allowance, however, for a more favorable condition of the countries traversed than they now exhibit, we shall yet find in the marches of Alexander a celerity of movement, and a promptitude of resource in difficulties of all kinds, of which it is much to be regretted, that his historians have not given more full details for instruction at this day.

H. T. P.

*Proceedings of the Asiatic Society.*

(Friday Evening, 10th June, 1842.)

The Honourable H. T. PRINSEP, Esq. President, in the Chair.

G. C. CHEAP, Esq. proposed at the last Meeting, was ballotted for and duly elected a Member of the Society.

Ordered—That the usual communication of his election be made to Mr. CHEAP, and that he be furnished with the rules of the Society for his guidance.

*Library.*

The following Books were presented:—

*Books received for the Library of the Asiatic Society for the Meeting on the 10th June, 1842.*

The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science. 3rd series, vol. xix. No. 127, and vol. xx. No. 128.

List of the Members of the Royal Asiatic Society of Great Britain and Ireland. 1841, pamph.

Lassen, Zeitschrift für die Kunde des Morgenlandes. Bd. iv. Heft. 1.

The Calcutta Literary Gleaner June, 1842. Vol. 1st, No. 4, two copies.

The Calcutta Christian Observer. New series, vol. iii. No. 30, June 1842, pamph.

Journal des Savants. Paris, Octobre 1841.

Transactions of the Zoological Society of London, 1841. Vol. ii. Part 5th.

Proceedings of the Zoological Society of London, 1840. Part 8th.

The Annals and Magazine of Natural History. Jan. 1842, No. 52, vol. xiii. pamph.

Yarrell's History of British Birds. London, 1841. Vol. iii. Part 28th, pamph.

Macpherson's Report upon the Bonds of the Districts of Ganjam and Cuttack. Calcutta, 1842.

Report on the Settlement of the District of Seharanpore, compiled by E. Thornton. October 1840.

Lardner's Cabinet Cyclopædia, Natural Philosophy, London, 1841. Vol. 1st.

Wilson's Introduction to the Grammar of the Sanscrit Language. London, 1841, 1 vol.

Bulletin de la Société de Géographie. 3rd Série. Paris, 1841, Tome xv.

Read the following report submitted by the Librarian, respecting the arrangement of Antiquities in the Museum:—

To H. TORRENS, Esq.

*Secretary, Asiatic Society.*

SIR,

I beg to submit to the Society the following report respecting the arrangement of the antiquities.

During the last three months I have had charge of this department of the Museum, and it has been my constant endeavour to identify the specimens, and place the collections in order.

The accompanying list which is to form the first part of the Catalogue, contains the arrangement and description of the antiquities and idols in metal and wood, and of the smaller ones in stone.

However, as little had been done to preserve the identity of the antiquities, no regular register kept, specifying the particulars, and giving a detailed description of the respective donations, in order to enable the Society to judge on the correctness of the catalogue, I hope, they will excuse me, if I trouble them with a statement of the reasons, which guided me respecting the identifying of the specimens.

I. Nos. 1—5. Five Egyptian idols, four of wood, and one of porcelain, presented by Lieut. Young, December, 1837, ascertained by the name of the donor, being written upon them.

Nos. 6—15. As. Res. Vol. XIV. Appd. p. 3. is mentioned a small collection of metal and porcelain images, presented by Capt. Bidwell, and as there is no other collection of this kind, we must suppose this to be the same that is mentioned in the Researches.

II. No. 16. A copper figure dug up near Bushire, donor Capt. J. Hennel, As. Journal, Vol. v. p. 241, identified by a drawing, given in the Journal.

III. Nos. 17—23. Seven brass and copper Images, presented by R. Home, Esq. As. Res. Vol. XII. Appd. p. 23.

Among the number of these Images, a Sesba Naga is mentioned, resting on a tortoise, and as there is only one of that peculiar situation in the collection, it undoubtedly is the same. On examining this figure, I discovered in the inside of the pedestal a cypher, made with white oil colour, and by this means I found out the other specimens, which had on the very same place, cyphers of the same colour, and the same hand writing.

IV. Nos. 24—38. Fifteen brass Images from Patna and Allabad, presented by Dr. Tytler, As. Res. Vol. XIV. Appd. p. 3; they had labels upon them, containing the name of the donor, and of the locality.

All of them refer to Shiva, and eight of them have a special allusion to the worshipping of the Lingam in different forms, generally Shiva, or Parvati, or both of them adoring this symbol. I must not omit mentioning, that one of them, a Shiva Lingam, worshipped by Gonesha, Nandi, Kartika, and Sesha Naga, has the crescent and the sun added, as so many more symbols of this worship.

That it is Shiva, however, who is represented in those images, and not another deity, as some at first would suppose, is evident from the trident and crescent being in all the images, though sometimes in a shape and in places which are not apparent at the first glance. These representations are singular for the number of their attributes and the rudeness of the style of the workmanship. No others in the collection exhibit the same rudeness of figure; for the different parts of the body can hardly be distinguished. From this, some would suppose them to be of great antiquity; but all these figures may be regarded as symbols which are formed not in a barbarous, but in a civilised age, and their vagueness and rudeness are designed to suggest to the mind of the worshipper, something indefinite and mysterious in the image which he adores.

V. Nos. 31—67. 1. There are mentioned in the *Asiatic Journal*, Vol. *XVII*, p. 368, three brass Images, Lokanatha, Durga-Singhbahni, and Goutamah from Nepaul, presented by S. Bramley, Esq. Two of them bear the name of the donor, and the third, Lokanatha, though the name is wanting, has such a striking resemblance to the Goutamah, that we may safely declare it to be the one mentioned in the *Journal*. The second Goutamah whom I have put together with them, has also so many characteristics in common, that had there been more than three mentioned in the *Journal*, I should have felt myself justified in assigning it to the same donor.

2. Nos. 48, 49, 50. Three ivory idols. I found no references to them in any periodical of the Society. They are evidently made by the same artist. On one of them "Nepâl" is written with a pencil, and they are moreover so like those just mentioned, that no doubt of their coming from the same country, can arise.

3. The fourteen images under numbers 53-66, representations of Hindoo deities, workmanship, ornaments, &c. being of the same style, are evidently all from the same place, which supposition is confirmed by the labels annexed to them, which are written by the same hand: but neither the name of the donor nor the locality is written. There are seven other Images without labels; but they so strikingly resemble in every particular those just mentioned, that we may assign to them the same country.

This, I think, is Nepâl, for the following reasons:—

a. All of them exhibit a very extraordinary similarity with those presented by Mr. Bramley. The Durga Singhbahni, above mentioned, for instance, corresponds in the principal characteristics with a Durga of this group in the form of Durga Mohish-mardini; we observe the same dress, the same ornaments, the same kind of pedestal. Though the head-dress in both is somewhat different, yet again the shape of the crowns, with all their particularities, is nearly the same, and in many of the images this similarity is still more striking. To this conclusion we are also led by the similarity which is seen in the formation of the head and expression of the countenance, which is seldom found hut among people of the same nation, nay, I should almost say, of the same tribe.

b. The strongest confirmation, however, is derived from the workmanship. It is true, this may be under certain circumstances identic, and the artists still belong to

different countries, if for instance they be of the same school. There is, however, nothing in Hindooism, which suggests the idea of such schools. The sects are too much in enmity with each other, the intercourse of the various countries too limited, and the artists of one place too closely adhering to their old established traditions, to authorise the supposition of a school of art, flourishing at different places. If there be a general coincidence in the workmanship of several specimens of Indian art, we may therefore infer on the identity of the country from which they come. Each of these conclusions require some caution, but if all the circumstances from which they are derived, combine, there can certainly be no occasion for doubt, and, on the whole, the principle, that the correspondence in minute and accidental particularities we may observe between a number of specimens of art, constitutes a sufficient reason to identify them in one way or another, according to the circumstances, is certainly well-founded.

c. Another confirmation is their likeness to the three ivory idols, above mentioned. A most remarkable coincidence is especially exhibited between the ivory Durga in the form of Tara, with another of ten arms, as behind the shoulders of both the same standards, with the same emblems upon them, may be observed.

As. Res. Vol. *XV*. Appd. p. 16, is recorded, that Lieut. C. P. Boileau from Nepaul, presented a great variety of brass images to the Society, so that we may assign the images, just named, to him, as there is no other number of images which bears so evident signs of composing one and the same collection, or which would prevent us from ascribing them to Nepaul.

VI. As. Res. Vol. *XVI*. Appd. p. 12, a donation of Images from Arracan is mentioned, consisting of the following specimens:—

1. A wooden model of Gotama's Temple.
2. Brass model of a Temple, used in the worship of Gotama.
3. A tin statute of Buddha, affording a correct model of some of the Arracan Temples.
4. Antient brass model of a Temple, containing four images of Buddha with Nags or Serpents.
5. A brass Statue of Gotama, with an attendant in an erect posture.
6. A wooden figure of Gotama, gilt and highly ornamented.
7. A ditto ditto, plain and gilt.

All these specimens were found with labels, presenting the name of the donor and locality. Further,

8. A wooden figure of Gotama, plain and gilt.
9. Two wooden female devotees of Gotama.
10. A wooden image of a female, called wife of Gotama.
11. Thumb of a large image of Gotama, made of solid stone.
12. A white marble statue of Gotama.
13. An iron figure of Gotama, gilt.

As these specimens on examination were found unique, no doubt could of course arise about their identity.

We find at the same place mentioned the following donations by the same Gentleman:—

14. A copper figure of Gotama, highly ornamented.
15. A brass ditto, gilt.
16. A ditto ditto, highly ornamented, and holding a pot with offerings.

17. Four brass statues of Gotama, crowned, and holding offerings.

18. Ten brass figures of Gotama.

19. A stone figure of Gotama.

The first seven statues were ascertained without difficulty, the short description given of them, being sufficient to discern them among the number of others.

Of the ten Statues of Buddha, I recognise eight from the number 75 to 82 in the list, for the following reasons:—

Three of them are much similar in their ornaments, the shape of their pedestals to those under numbers 71—74. A striking similarity between them is the manner in which the attendants are placed on the corners of the pedestals, and all of them have the same forward bending position. This circumstance alone suffices for vindicating the placing of them under the same group; for though the same ideal of the representation of Buddha, may be observed with Buddhists of different countries, yet it is obvious from even a small collection of specimens of Buddhist art, made at different places, that there is a marked difference between them in little particularities, and such a correspondence being found in a number of specimens, we may safely attribute them to the same country. Moreover, could there be any doubt of this, the similarity in the forms of the face would remove it. If the identity of these three images be granted, we cannot refuse to claim the same decision for the remaining five; for though the attendants do not accompany them, and the pedestals differ, still the national characteristics are too prominent to allow us forming a different opinion. The same holds good with regard to the stone figure.

In concluding this report I beg to observe, that many of the Members of the Society undoubtedly have a recollection of the circumstances under which some of the antiquities were laid before the Society, and with regard to those antiquities which are not yet identified, especially the statues and sculptures, I would request them to favour me with such information, as they are able to give about them.

I have the honour to be,

Sir,

Your obedient Servant,

E. ROER.

3rd June, 1842.

I — *Antiquities which have been identified.*

A.—*Egyptian.*

1. Figure of wood.
2. Ditto ditto.
3. Ditto of Porcelain.
4. A Head made of clay.
5. A Head made of wood.

*Presented by Lieut. Young, (see Jour. As. Soc. Vol. VI. page 987.)*

- 6 to 11. Porcelain figures, with Hieroglyphic characters.
12. A figure of metal, representing Isis with a Horace on her lap.
13. A ditto ditto of wood.
14. A figure of metal.

*Presented by Capt. Bidwell, (see As. Researches, Vol. XIV. Appendix p. 3.)*

15. A beetle made of plaister, with Hieroglyphic characters.



B.—*Persian.*

16. A copper figure, dug up near Bushire.

*Presented by Capt. J. Hennel, (see Jour. As. Soc. Vol. V. p. 241.)*

C.—*Indian.*a. *From Patna or Allahabad.*

17. A brass Sésa resting on the tortoise.  
 18. A copper Bhavani, with a lion's head, canopied.  
 19. A copper figure of Parvati.  
 20. A ditto ditto.  
 21. A copper figure of Ganesa.  
 22. A copper figure of the Infant Crishná.  
 23. Figure of Buddha.

*Presented by R. Home, Esq. (see As. Researches, Vol. XII. Appendix p. 23.)*

24. A brass figure of Siva with five heads, from Allahabad.  
 25. Four brass figures of Bhairava, adoring the Lingam.  
 26. A brass figure of Shiva, from Allahabad.  
 27. Two brass figures of Shiva, adoring the Lingam.  
 28. One brass figure of Shiva, from Allahabad.  
 29. A brass figure of Kali, attended by her Lions, from Allahabad.  
 30. A brass figure of Shiva.  
 30. a. A brass figure of Shiva, from Allahabad.  
 31. A brass figure of Shiva, adoring the Lingam, from Allahabad.  
 32. Two brass figures of Shiva, adoring the Lingam.  
 33. One brass figure of Parvati, adoring the Lingam.  
 34. Ganesa and Kartika, adoring the Lingam.  
 35. Brass figures of Siva and Parvati, from Patna.  
 36. A brass figure of Parvati, from Allahabad.  
 37. A brass figure of Parvati, from Allahabad.  
 38. A brass Arrotee, from Allahabad.

*Presented by Dr. R. Tytler, (see As. Res. Vol. XIV. Appendix p. 3.)*

D.—*Antiquities from Nepal.*1.—*BUDDHIST.*

39. A copper figure of Gotamah, holding offerings.  
 40. A copper figure of Gotamah, holding offerings.

*Presented by S. Bramley, Esq.*

41. A brass Buddhistical figure.

—————*Donor ?*

42. A brass Buddhist figure.  
 43. A brass female Buddhist figure.

*Presented by Lieut. J. P. Boileau, (see As. Researches, Vol. XII. Appendix p. 16.)*

2.—*HINDU.*

44. A copper figure of Lokanatha.

*Presented by S. Bramley, Esq. (As. Jour. Vol. II. p. 368.)*

45. A brass figure of Lokanatha.
46. A ditto ditto.
47. A wooden figure of Lokanatha.

*Presented by Lieut. J. P. Boileau, (As. Res. Vol. XIII. Appendix p. 16.)*

48. An ivory figure of Durga in the form of Tara, (4 arms with the skull of a giant in one hand, and surrounded with the necklaces of Human Skulls.)

————— *Donor?*

49. An ivory figure of Baráha Avatar, (with the attributes of Tara as above specified.)

————— *Donor?*

50. An ivory figure of Ganésa.

————— *Donor?*

51. A brass figure of Tara.

*Presented by Lieut. J. P. Boileau, (see As. Res. Vol. XIII. Appendix p. 16.)*

52. A brass figure of Durga Mohish Mordinee, (with eight hands.)
53. A ditto ditto of Garuda.
53. a. A ditto ditto of Shiva.
54. A brass figure of the first incarnation of Shiva, "Matseea Avatar."
55. A brass figure of the second incarnation of Shiva, "Koorma Avatar."
56. A ditto ditto of the third incarnation of Shiva, "Borahá Avatar."
57. A ditto ditto of the fourth incarnation of Shiva, "Nursingha Avatar."
58. A ditto ditto of the fifth incarnation of Shiva, "Vamana Avatar."
59. A ditto ditto of the eighth incarnation of Shiva, "Sree Krishna Avatar."
60. A ditto ditto of the Kalika Avatar.
61. A brass figure of a Vishnú, with four arms.
62. A ditto ditto of Narain and his Spouse "Luksmee."
63. Three brass figures, Krishna with two female attendants.
64. Three brass figures, Ram, Lokhana, and Sitta Dévi.
65. A brass figure.
66. A ditto ditto of the goddess Kalee.

*E.—From Arracan.*

#### I. BUDDHIST.

67. A copper figure of Gotamah, highly ornamented.
68. An iron figure of Gotamah, gilt.
69. A brass figure of Gotamah, gilt.
70. A ditto ditto highly ornamented, and holding a pot with offerings.
- 71 to 74. Brass statues of Gotamah, crowned and holding offerings.
- 75 to 82. Brass figures of Buddha.
83. A brass statue of Gotamah, with an attendant in an erect posture.



*Presented by Dr. R. Tytler, (see As. Researches, Vol. XVI. Appendix p. 12.)*

84. A stone figure of Gotamah.

————— *Donor?*

85. A brass statue of Gotamah, with a crown, and ornamented.

86. A wooden figure of Gotamah, gilt and highly ornamented.

87. A wooden figure of Gotamah, plain and gilt.

88. A wooden figure of Gotamah, plain and gilt.

89 to 90. Two wooden female Devotees of Gotamah.

91. Ancient brass model of a Temple, containing four images of Buddha, with Nagas, or Serpents, over the entrance.

92. Thumb of a large image of Gotamah, made of a solid stone.

93. A tile representing the foot of Gotamah, impressed with the figures of Buddha.

94. A wooden image of a female, called the wife of Gotamah.

95. A wooden model of Gotamah's Temple.

96. A brass model of an Arracan Temple, used in the worship of Gotamah.

97. A statute of Buddha, affording a correct model of some of the Arracan Temples.

98. A Siva Lingam, procured in a Temple at Keykeramdong.

99. A white marble statue of Buddha. *Donor, Dr. R. Tytler (see As. Researches, Vol. XVI. Appendix, p. 12.)*

101 to 113. A set of Arracanese Griffin Weights of brass. *Donor, Captain Bogle, (see As. Journal, Vol. VI. p. 987.)*

114, 115, 116. Figures of Buddha, gilt. *Donor?*

117. An earthen sculpture of Buddha, with two attendants, and Sanscrit Inscription, from Tagoung, about 100 miles from Ava.

118. An earthen sculpture of Buddha, with Sanscrit Inscription.

*Presented by Captain Hannay, (see As. Journal, vol. V. p. 126.)*

119. An earthen sculpture of Buddha, with Sanscrit Inscription.

*Presented by Prince Alakara, (see Journal As. Society, Vol. X. p.—)*

120. An earthen sculpture of Buddha, with Sanscrit Inscription. *Donor?*

121, 122. Earthen sculptures of Buddha, with Sanscrit Inscription, gilt.

————— *Donor?*

123, 124. Marble statues from Pagahna Mew, a town in the Birman Empire, situated on the East side of the Irrawaddy River. Lat. 21° 9' N. Long. 94° 35' E.

*Presented by Captain Ross, (see As. Researches, Vol. XVI. Appendix p. 12.)*

125. A stone Lingam with Sculptures.

*Presented by Dr. R. Tytler, (see As. Researches, Vol. XV. Appendix p. 36.)*

F.—From Java.

126 to 201. A brass figure, supposed to be "Kartika" seated on a Peacock, with a Lion's mouth, and holding a spear in his right hand.

127 to 202. A brass figure, sitting with crossed legs on a state chair.

II.—*Idols and Antiquities not identified with regard to their Donors and Localities.*

1.—BUDDHIST.

- 126. A brass figure of Buddha.
- 127. A wooden model of Buddha.
- 128, 129. Copper figures of Buddha.
- 130. A brass figure of ditto.
- 131, 132. Copper figures of ditto.
- 133, 134, 135. Copper figures of Buddhas holding offerings.
- 136. A small copper bell in the shape of Gotamah.
- 137, 138. Copper Buddhistical figures.
- 139 to 142. D. D. ?
- 143. *a.* A copper Buddhist figure with ten hands, gilt.
- 143. *b.* A copper mould and lead cast of five Buddha figures.

2.—HINDU.

- 144. A brass figure of Siva and Parvati.
- 145, 146. Copper figures of Parvati.
- 147. A brass figure of Siva, with four hands.
- 148. A copper figure of Siva, in a sitting posture.
- 149. A brass figure of Durga Mohish Mardini, with eight hands.
- 150. A brass figure of Durga, with eight hands, destroying the Asura.
- 151, 152. Copper figures of Durga Singh Bhani.
- 153. A copper figure of Gonesha, sitting on a rat.
- 154. A brass figure of a Devotee, being the representation of the Lingam worship.
- 155. A copper figure of Siva, with four hands.
- 156. A brass figure of Vishnu.
- 157. A copper Bhavani, with a Lion's head, and canopied by Sésa Naga.
- 158. A copper figure of Lokshmi.
- 159. A ditto ditto.
- 160. A brass figure of Vishnu.
- 161. A copper Kalika Avatar, mounted on a horse.
- 162. A ditto ditto.
- 163, 164. Brass figures of Krishna.
- 165. A copper figure of young Krishna.
- 166. A copper figure of infant ditto.
- 167. A copper figure of Krishna, standing under a tree.
- 168. A copper figure of Radha.
- 169. A brass figure of — ?
- 170. A ditto ditto of — ?
- 171. A brass figure of a Devotee holding offerings.
- 172. A copper figure of Hanúman.
- 173. A ditto ditto.
- 174. A brass figure of Hanúman on one side, and of a Devotee, on the other.

- 175. A brass figure of a Munee or Devotee.
- 176. A ditto ditto of a Devotee.
- 177. A ditto ditto of a Female.
- 178. A brass figure of a Female under an arch.
- 179. A ditto ditto canopied by Naga.
- 180. A brass figure of a Devotee.
- 181. A copper figure — ?
- 182. A brass figure holding a snake with both hands.
- 183. A brass Arrotee, containing five oil burners, and the figures of two men and a female.
- 184. A copper cast of a Peacock.
- 185 to 188. Earthen casts of figures, with Sanscrit Inscriptions.
- 189, 190. Copper Snakes.
- 191. Copper Snake, with five mouths to a head.
- 192. A copper Bull and a figure, canopied by Naga.
- 193. A brass Bench.
- 194, 195. Copper moulds for casting the Lingam.
- 196, 197. Brass moulds for ditto ditto.
- 198. A copper head of a Human Figure.
- 199. A procelain figure of an Ape.
- 200. A brass figure of a Female Dancer.

Read letter from B. H. HODGSON, Esq. Resident of Nipal, with a specimen of the style in which Mr. F. HOWARD, the celebrated illustrator of Capt. HARRIS' African Beasts, proposed to bring out his mammals and birds of Nipal. There are about 100 quadrupeds which Mr. HOWARD will give for No. 50 in alternate monthly numbers of twenty plates, each No. to cost Rs. 10.

Read a further letter from the same gentleman, enquiring if the Tibetan mammals and birds sent by him through various channels (specified) had been received, and advising the dispatch of thirty-one drawings for exhibition at the Society's Meeting, and for ultimate transmission to London, "so that in India and England the authorities and public may resort to their promise to support the work by subscription."

The drawings referred to were exhibited; and the subject, it was remarked by the Secretary, would have the notice it deserved in an early number of the Journal.

The Secretary exhibited some specimens of *Ningpho China*, consisting of cups, sugar pots, flower vases, intended to be hung on the walls of a room; imperial pattern plates, and basons, Chinese scales, and other articles presented by Lieut. J. BROCKMAN, H. M. 50th Regiment; some of these articles, although of a trifling nature, were valuable as curiosities.

Read a letter from Mr. D. Ross, offering for the acceptance of the Society an old mineral glass case.

Read letter from the Honorary Secretary of the Royal Asiatic Society, London, of the 4th December 1841, conveying thanks of the Royal Society for five numbers (109 to 113) of the Journal of the Asiatic Society of Bengal.

Read the following letter from J. H. BATTEN, Esq., of 8th February, 1842:—

MY DEAR TORRENS,

*Almorah, February 8, 1842.*

Having returned to Almorah, I lost no time in sending off an instalment of the Herbert MSS. to the Asiatic Society, and accordingly on 6th instant I despatched by dāk to your address, a packet containing two neatly written vols. which can at once be printed off. These vols. contain a Journal of Herbert's visit to the lower ranges of Sirmoor, and the low country and hills about Bark and Roopur, below the Soobathoo mountains, to the Terrai east of the Jumna, belonging to the Suharunpore Zillah, to the Dehra Doon, and thence crossing the Ganges along the edge of the Bijnore, and Moradabad and Pilibheet Terrai, to that of Kumaon, and to Bhamouree Pass, and thence by the Bheemtal route to Almorah. Captain Herbert stayed at Almorah a whole summer, and recorded observations. Thence his Journal shews his tour in a NNE. direction towards the Juwakee Pass, (Oonta Dhoora,) and the Snowy range from which flows the Goree river, one of the main feeders of the Goggra river. Before reaching Melum, Herbert fell ill, and his Journal ends.

I have three other vols. of Manuscript. These are all badly written, and parts of them are very obscure. One of the vols. is written topsy-turvily, *i. e.* one set of observations are recorded on one side of a page, and another set on the other, and large *lacunæ* intervene. Luckily this volume relates to Kumaon, and British Gurhwal, tracts with which I am intimately acquainted, and my local knowledge enables me to decypher the names of places, and connect the threads of the narrative. I assure you that nobody at Calcutta can possibly interpret the volume in question. I therefore, propose to edit it myself, only asking time, say, to the close of the rains, for the work. James Prinsep gave up the task in despair, and I would not keep the vol. in question for a day, if I thought that his successor in Calcutta could really make any thing out of the MS. This vol. also contains Captain Manson's continuation and completion of the Journal which Herbert discontinued from illness, and the tale is thus carried on from where Herbert stopped, to Melum and Oonta Dhoora Pass, (a highly interesting tract which I have myself visited,) and back over the hills to Almorah. This part can be separately transcribed by me now, (*i. e.* before the rains,) and sent to the Society. In its present state I defy any one, who has not been at every spot named, to decypher the words, and to fill up the gaps caused by moths and white ants.

The 2nd vol. contains a Journal by Capt. Manson, (Herbert's then Assistant, now Commissioner with Bajee Rao,) of a tour from Almorah to the outposts at Petorah Gurh and Lohooghat, and thence through the hills nearest the plains, to Bheemtal. The writing in this vol. has become very obscure from time and the ravages of insects, but I hope, with the aid of my map and local knowledge, to decypher the whole of this little narrative. In this vol. as in the others, there are double sets of numbers for the

2274

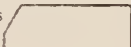
rock specimens, thus: No. 160—Greenish white quartzose rock, &c. &c.

No. 2275

161. Greyish rock approaching to porphyritic.

The 3rd vol. is, I believe, first in order of time, but the dates of months are for the most part given, and not those of years. Prinsep's note makes the year of this Journal to be 1826, and this would appear to be correct. It begins with *Chilkeea*, the mart for hill productions between the Kumaon Terrai and Casheepoor; thence the Journal describes Herbert's tour up the Kosilla river into the Kumaon Hills via Dhikkolee and Chokoom as far as Okuldoonga, where he left the river and ascended to Tarket. It then shews his return to Chilkeea, and passage through the Terrai to Haldooa and Casheepoor, and thence along the edge of the forest in a westerly direction to Juspoor, Burrapoora, Kadirkote, and Nujeebahad to Nagul, where he crosses the Ganges, and marches by Bhogpoor to Hurdwar, and thence through the lower hills and Doon to Dhera. At Hurdwar, Capt. Herbert makes the following note: "I begin here to number my second thousand with the printed Nos. from 1," but in all this vol. there are double numbers, thus:—

77.4	}	rolled specimens, chiefly hornblendic sent to Dehra.
78.5		
79.6		
80.7		

The larger numbers representing, it would seem, the general series; the smaller, the series obtained at any particular spot. From Dehra, Herbert made excursions to Sunsur-Dhara, the celebrated dripping rock, and Col. Young's house on the hills, called "the Potatoe Garden," now a part of the great station of Mussooree. His geological observations here are very full, as are those in the range near Hurdwar. At Dehra he examined Mr. Shore's well, and describes its strata to the depth of 221½ feet. He afterwards describes his march through the Doon and across the Jumna to *Kalsee*, where he regularly enters the hills. He thence marches through Jounsar, Joohul, &c. by a circuitous route to the Burin or Brooang Pass, (the Borendo of the Simla folk,) thence down the Pabur river to the Tonse, and Jumna countries, and to Dehra Doon by the Aglar valley and over Mussooree range. From Dehra Doon to Suharunpoor, Meeruth, Moradahad, Ganges Ghât, and down the river to Calcutta, and on his way down he narrowly escaped drowning at Colgong. In this vol. there are mention of 379 specimens, and Herbert in a note written in July 1827, (at Almorah I believe,) says, that these specimens were left at Moradahad, and had by an accident, become very much damaged in their envelopes. He records the shape of the labels in this series (viz. the 2nd 1000) as  and he notes the doubtful, loose and remaining numbers.

The country described in this volume has been subsequently examined by numerous travellers, as it is that chiefly visited from Simla and Mussooree, and I do not think that anything very novel will be brought to light by the Journal:—but, if it can give a clue to the *labels* and *specimens* at Calcutta, you will think it valuable, and I therefore propose to despatch this vol. to-morrow to your address. Allusions in it are frequent, I see, to places in Kumaon, as Powree; at Sreenuggur Dheeaneekot near Almorah; Jilmilputteen near Kedarnath; Punnae on the Aluknunda, noted for its



curious greywacke and also metalliferous talcose rocks; Dheenpoor, the site of some large copper mines in this province, &c. This fact shews that Herbert had visited the Province, before the period of the Journal which I propose to edit. Yet, I have never seen any record of his tour to Sreenuggur, Kedarnath, &c., that is of his first visit to Kumaon, and that part of Gurhwal which is attached to this province, and I should like much to discover some Journal of the tour in question. Mr. Piddington will find the volume of MS. which I propose to send to-morrow, less kakographic and more easy to decypher than the volume which I retain, (there being no breaks to, and no great admixture of other matter with the narrative,) moreover, numbers of people, and among them my friend Pratt, know the country described. It is a great pity that Dr. McClelland confined (no fault of his though) his observations in Kumaon to the immediate neighbourhood of Lohoghat and Petora. Had he examined the country South-West and North of Almorah, he would have been able to edit Herbert's Kumaon volume, and to elucidate Manson's mysterious pothooks. As it is, you must kindly beg the Asiatic Society to be thankful for the MSS. already sent, and the MS. promised by to-morrow's dâk, and to await with patience (for I have not much leisure,) my edition of Herbert and Manson's Kumaon Journal, which I will endeavour to make as luminous as possible.

Believe me to remain,

My dear Torrens,

Yours very sincerely,

J. H. BATTEN.

The letter having been read, it was proposed by the Lord Bishop, seconded by the President,—That the thanks of the Society be voted to Mr. BATTEN for the valuable services rendered by him in the recovery and transmission of the late Captain HERBERT's manuscripts, and that the acknowledgments of the Society be tendered to Mr. BATTEN for his offer of editing the late Captain HERBERT's and Major MANSON's Journal in Kumaon.

Read the following report submitted by the Curator of the Museum :—\*

SIR,

Since my last Report to the Society, the following donations of Zoological specimens have been received for the Museum.

From Dr. Wallich, a very fine specimen of the true *Zibet* of Buffon, or *Viverra Zibetha* of Linnæus, being a species of rare occurrence in European Museums, indeed I only know of one specimen which is in the British Museum, for the *Tanggalung* of the Malays, regarded as Buffon's *Zibet* by the brothers Cuvier, is quite a different animal, which has since been termed *V. tanggalunga* by Mr. Gray: the present species is the *V. melanura* of Mr. Hodgson, and an interesting notice of its habits, with a very recognisable figure, occurs in Williamson's 'Oriental Scenery'; there is also a figure and notice of this species in the 1st No. of Dr. McClelland's 'Journal of Natural History.'

Likewise a female specimen of *Parodoxurus typus*, which has been added to the collection of stuffed mammalia.

In the class of Birds, I have the pleasure to record the donation, from Government, of a beautiful recent specimen of *Tragopan satyrus*, which has been mounted.

\* This Report should have been published with the "Proceedings of the Asiatic Society," at p. 274, and have preceded the Report given at p. 444 *et. seq.*—*Cur. As. Soc.*



From W. Masters, Esq. a recent Chinese Lory (*Lorius Sinensis*).

From R. W. G. Frith, Esq. through Mr. Hampton, mounted specimens of the following species of Birds.

*Athene Brodiei*: *Noctua Brodiei*, Burton, *P. Z. S.*, 1835, 152, seu *N. tubiger*, Hodgson, *As. Res.* XIX, 175, bearing date 1836.

*Garrula leucogenys*, Nohis: being the eighteenth species of this genus with which I am now acquainted from Northern India. This generic title holds precedence of *Crateropus*, Swainson, and *Ianthocinclá*, Gould, applied to the same group, certain species of which have been referred to *Cinclosoma* by Mr. Vigors, and others by Mr. Hodgson. I have elsewhere endeavoured to reduce the synonyms of the various members of this genus, and have prepared descriptions of the present and another new species, for which *vide p.* 180, *ante*.\*

*Francolinus vulgaris*.

*Fr. Pondicerianus*: *Tetrao Pondicerianus*, Gmelin; *Perdix orientalis*, Latham, but not of Horsfield. A figure and interesting notice of the habits of this species have been published in the 'Bengal Sporting Magazine,' for October, 1840.

*Fr. gularis*: *Perdix gularis*, Tem: figured as the *Chicore*, in the 'Bengal Sporting Magazine' for September, 1839, but which must not be confounded with the true *Chicore* (*Perdix Chukar*) of the Himalaya.

*Ortygis*, allied to *Hemipodius atrogularis*, Eyton, *P. Z. S.*, 1839, 107, and scarcely less so to *O. pugnax* and *O. taigoor*, all these species having a black throat and fore-neck in the mature male, and which is broader in the present species than in the two latter: from these it is readily enough distinguished by the predominance of black on the upper parts, the more strongly marked large oval spots of this colour on the wing-coverts, and the hue of the belly which is merely tinged with rufous; size intermediate. On some future occasion, I hope to do something towards elucidating the Quails, dwarf Partridges, and *Ortyges* of India, which at present are a most perplexing group, notwithstanding the exertions of Col. Sykes, and of subsequent investigators, who as yet have but very partially analysed the numerous species.†

Of the foregoing six species of birds presented by Mr. Frith to the Society, four are new to their Museum; viz. the tiny Owl, the *Crateropus*, the Wood Partridge, and the *Ortygis*.

Numerous specimens of birds have also been added to our collection, procured in the bazaar, among which it will be sufficient to notice a few of the more interesting.

*Caprimulgus macrourus*, Horsfield, *Lin. Trans.* XIII, 142. A very handsome male. We before possessed specimens of what appear to me to be the female of this species, and which, if so, are remarkable for the pale colour predominating much more than in the other sex.‡

*Tringa platyrhyncha*, Temminck. A male in winter plumage; one in summer garb, from the old China collection, having been already in the Museum. The only additional species of this genus, which I have hitherto met with, are—*Tr. subarquata* which is not rare, and *Tr. minuta*, which is exceedingly abundant.

\* I have since become acquainted with several additional species, which I shall describe in a more elaborate monograph of the genus.—*Cur. As. Soc.*

† I have since prepared the analysis above mentioned, which will appear in a subsequent *Report*: the bird above noticed is Mr. Eyton's *atrogularis*.—*Ibid.*

‡ This appears to be common in Nepál.—*Ibid.*

*Recurvirostra Avocetta* : fine specimens.

*Botaurus stellaris*. The European Bittern, a handsome female.

*Pluvianus cinereus*, Nobis; being the sixth Indian species of this genus with which I am acquainted: length of a female 14 inches, by  $2\frac{1}{2}$  feet in extent; wing from bend  $9\frac{1}{2}$  inches, and tail  $4\frac{1}{2}$  inches; bill to forehead  $1\frac{1}{2}$  inch, and bare part of tibia the same; tarse 3 inches. Irides dilute red, with a cast of brown; orbital skin, small frontal lobes, basal three-fifths of the bill, and the legs, bright yellow; the rest of the bill black, as are also the claws. General colour of the upper parts pale greyish-brown, the head, neck, and breast, pure light grey, passing into black on the lower part of the breast, which terminates abruptly, contrasting with the white belly; primaries, their coverts, and the winglet, black; the secondaries and their coverts chiefly white, and the tertiaries concolorous with the back: upper tail-coverts white, slightly tinged with brownish; and tail pure white, having a black subterminal band, broad on its medial feathers, nearly obsolete on the penultimate, and quite so on the outermost. This species is new to the Museum, and I have seen but this one specimen.

*Rallus gularis*, Horsfield. Beautiful specimens.

*Phalacrocorax pygmaeus*, Auct.

*Rhynchea picta*. I merely notice this handsome species, a fine series of which has been put up, to remark that an affinity which I long ago detected and commented upon, between this genus and the American *Heliornis*, is strikingly manifested by the living *Rhynchea*. The style of colouring and markings correspond, and the American genus is styled *Heliornis* (or Sun Bird), from its habit of spreading out the wings and tail, upon surprise, and so forming with them a sort of radiated disk, whereon the elegant markings are beautifully displayed. The same habit is observable in *Rhynchea*, which thus shews off its spotted markings to the admiration of the beholder, menacing the while with a hissing sound and neck contracted, when suddenly, seizing a favourable opportunity, it darts away upon the wing. Mr. Gray (in *P. Z. S.*, 1831, 62,) has attempted to define two alleged species of Indian *Rhynchea* by the names *Picta* and *Capensis*, the former only of which he had himself seen from Africa as well as from India and China; but he refers to Savigny's figure of *Rh. Capensis*, in the *Oiseaux d'Egypte*, as furnishing a faithful representation of the other. Should they be different, however, the attempted definitions need to be rendered more intelligible, as neither comparison of them with specimens, nor of the latter with Savigny's figure, has enabled me to decide to which the Bengal bird should be referred, and certainly the considerable number which I have seen and examined of this latter were all of the same species. Among a number of African and Indian specimens of birds identical in species which were exhibited by Col. Sykes before the Zoological Society, as noticed in *P. Z. S.* 1835, 62, were examples of a *Rhynchea* styled *Capensis*, Stephens.

In the class of Reptiles, a specimen of the *Python Tigris*, fifteen feet in length, has been purchased alive and been killed; its skin has been mounted, a number of preparations made of its viscera, and the skeleton is now in process of being cleaned. A considerable number of other skeletons, chiefly of birds, have also been laid by to be set up as opportunity will permit of it.

Mr. Frith's donation comprised, in addition to the birds which have been mentioned, a few specimens of insects, together with some pupa-envelopes constructed of bits of plant-stems, though by what species I am unacquainted.

The following are the dimensions of the magnificent Gaour of which the skin, prepared for being set up in our Museum, is now in progress of transmission from Chyebassa, as already noticed by the Secretary. They were taken by Lieut. Tickell from the recent animal, and I annex a copy of the figure which he has kindly supplied me with, in order to enable our taxidermists the better to imitate the form of the living beast in the stuffed specimen.

							Feet. Inch.	
A, B,	a string passed along the back to root of tail,	....	....	....	....	....	8	8½
A, a,	from frontal ridge to tip of muzzle,	....	....	....	....	....	2	0
c, d,	horns apart anteriorly at base,	....	....	....	....	....	1	0½
e, f,	tip to tip of ditto,	....	....	....	....	....	2	3¼
A. g.	from nose to centre of eye,	....	....	....	....	....	1	0¾
g, h,	eye to root of horn,	....	....	....	....	....	0	4¼
g, k,	eye to base of ears,	....	....	....	....	....	0	6
l, m,	humerus, &c.	....	....	....	....	....	1	11¼
m, n,	radius,	....	....	....	....	....	2	8
n, o,	metacarpus,	....	....	....	....	....	0	9¾
o, p,	pastern, &c. and hoof,	....	....	....	....	....	0	7¼
q, r,	pelvis,	....	....	....	....	....	1	4½
r, s,	femur,	....	....	....	....	....	1	7¼
s, t,	tibia and fibula,	....	....	....	....	....	1	10
t, v,	metatarsus,	....	....	....	....	....	1	4
v, w,	pastern to end of hoof,	....	....	....	....	....	0	7½
C. D.	perpendicularly, about	....	....	....	....	....	5	9
C. X.	length of dorsal ridge,	....	....	....	....	....	2	5½
	tail-root to tip of hairs,	....	....	....	....	....	3	1¾
k, y,	circumference of head behind horns,	....	....	....	....	....	3	11
i, z,	neck behind ears,	....	....	....	....	....	4	0½
C, 2,	chest,	....	....	....	....	....	8	8
3, 4,	muzzle,	....	....	....	....	....	1	9¼
5, 6,	fore-arm close to axilla,	....	....	....	....	....	1	11¼
7, 8,							0	9
9, 10,	thigh close to body,	....	....	....	....	....	3	0¾
11, 12,	thigh close above hock,	....	....	....	....	....	1	6

“Irides grey; muzzle black; horns pale, with dark tip; hoof, blackish.”

I am, Sir,

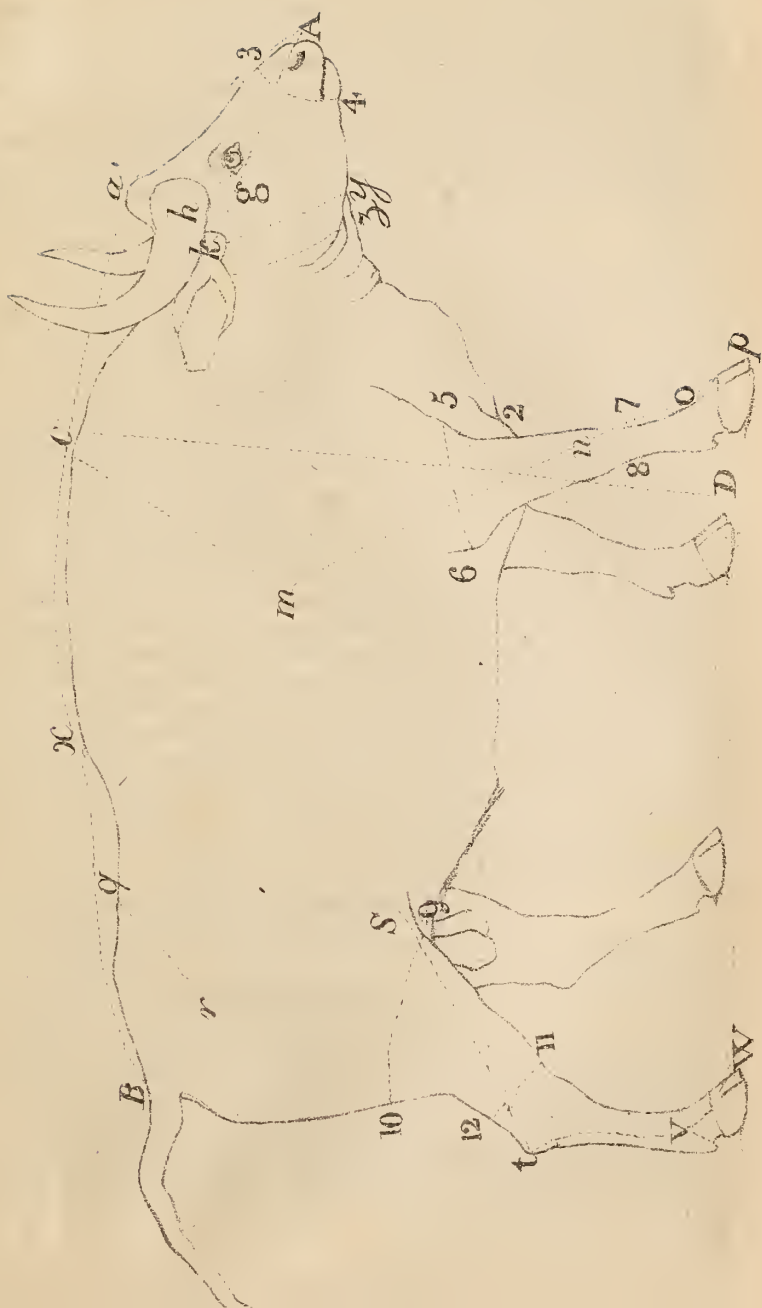
Yours obediently,

ED. BLYTH.

#### Report for May Meeting.

SIR,—On the present occasion, I have comparatively few donations to announce to the Meeting.

In the class of mammalia, our most interesting acquisition is the remarkably handsome Fox from beyond the Sutlej, already announced as having been presented by Mr. Lushington. I presume it to be the *Vulpes Nipalensis*, Gray, *Mag. Nat. Hist.*, N. S., I, 578, according so far as can be made out from the very imperfect description there given; but notwithstanding the differences of colour, and length and quality of





fur, apparent between this and our specimen of the common Himalayan Fox, upon which Dr. Pearson founded his description of *V. montanus*, vel (subsequently) *V. Himalaicus*, Ogilby, I cannot, after full consideration, regard them as specifically distinct, but consider this to be a variety merely, from a colder habitat, or perhaps a winter-killed individual, though I am unaware that any of the *Canidæ* renew their coat more than once in the year. Certainly, with regard to the name *Nipalensis*, Mr. Hodgson, who has so long pursued his zoological researches in that province, would seem to be unaware of any Nepålese species additional to *V. montanus* and *V. corsac*; a circumstance which also tends to cast a doubt upon the *V. Hodgsonii*, likewise insufficiently described by Mr. Gray, *loc. cit.* The specimen now exhibited may, indeed, be tolerably well referred to either of the *half-descriptions* indicated.\*

Length thirty inches from nose to base of tail, the tail with hair sixteen inches; from nose to base of ear five inches and a half, and ears (measured posteriorly, and making some allowance for their having shrunk,) four inches; height of the back fifteen inches. Fur exceedingly rich, dense, soft and fine, the longer sort measuring fully two inches upon the back, and the inner everywhere of considerable length and woolly character. General colour pale fulvous, scarcely more than fulvous-white over the shoulder-blades, and but little deeper on the sides, the haunches and tail appearing greyish, while the middle of the back is much deeper and more rufous fulvous than the rest, widening upon the croup, and passing there into the greyish appearance of the haunches; outside of the ears deep black to near their base (as in ordinary *montanus*); and the under-parts mingled white and faint nigrescent, the latter being the general hue of the inner fur at base, and more or less developed on different parts. Head light fulvous mixed with white, and marked as in other Foxes; the darkish streak from the eye to the moustachial bristles faint, the latter black, and cheeks and jowl white as usual. Limbs about the same pale fulvous as the head, the ordinary mark in front of the fore-limbs inconspicuous, though indicated by grizzled black and white-tipped hairs: tail bushy and white-tipped, with also a white mark across its upper surface near the base, above which the colour is the same rufous-fulvous as the croup, while ascending on each side of the buttocks is some whitish, which is divided by a narrow rufous stripe at the mesial line; the rest of the tail being pale dull fulvous with the hairs slightly black-tipped.

Captain Hutton states (*J. A. S.* VI, 934,) of *V. montanus*, that "the males are larger and much darker than the females." The very pale specimen, however, here described is a male: and should my specific identification of it be correct, the *V. mon-*

\* *Vulpes Nipalensis*. Fur soft, silky, long; above, bright fulvous-yellow.

"Inhabits Northern India, Nepål.—*Gen. Hardwicke*.

"Like the common European, and American fulvous, Foxes; but the fur is much softer and brighter coloured.

"*V. Hodgsonii*. Fur rather woolly; above, bluish grey. Forehead, nape, and middle of the back, yellowish-brown. Tail-end, black. Chin and beneath, white.

"Inhabits North India, Nepål.—*Hardwicke*."

With respect to "tail-end black," I suspect that Col. H. Smith's observation will be found to apply, that "of the hundreds of [English] Foxes and skins examined by us, although there be many with the end of the tail apparently black, we have not found one where there was not a white tip within the black; although most Foxes occasionally pull out the hairs at the end of the tail." Dr. McClelland writes, of the Fox of Kemaon, "he has grey legs, becoming darker to the feet; dark sharp nose; bushy tail, *that of the male having a white tip*; the upper surface of the ears velvet-black, inner surface cream yellow." 'Geology, &c. of Kemaon,' p. 220.



*tanus* would accordingly appear to be subject to considerable variation in shade of colour, like the allied *V. fulvus* of North America. In connexion with this subject, I may further remark, that Lieut. Irwin mentions "black fox" skins, together with those of the "common brown fox," as among the "commodities sent from Independent Toorkistan to the marts of Chinese Toorkistan.\* "The Fox of Toorkistan," he observes, "and generally of the cold and temperate countries, has all the cunning of the English, unlike the puny Fox of India"; the former probably referring to the common Himalayan species, rather than to the Tibet Fox (*V. ferrulatus*) of Mr. Hodgson; though regarding the cunning of those of Kemaon, Dr. McClelland writes—"They are somewhat larger than the English Fox, and are very easily caught in traps," whereas the Jackal there, which is much larger than the Jackal of the plains, is remarkably shy and cautious, so much so as never to allow itself to be caught in a trap."†

In Afghanistan, according to Dr. Griffith, "a large and a small species of Fox appear to exist. The former, which is perhaps identical with the large Himalayan Fox, I procured from Quetta and at Olipore, at which place it is not uncommon.‡ The small kind seems to resemble the Fox of the plains of N. W. India."

Of the latter, or more exclusively those of the great Western Hurriana desert, the Hon. Mountstuart Elphinstone remarks, that these are "less than our [the English?] Fox, but somewhat larger than the common one of India: their backs are of the same brownish colour with the latter; but in one part of the desert, their legs and belly up to a certain height, are black, and in another, white. The line between those colours and the brown is so distinctly marked, that the one kind seems as if it had been wading up to the belly in ink, and the other in white-wash." *Account of Cabul*, &c. p. 7. Specimens of the animals here indicated would be highly acceptable to zoologists.

I have been informed that a species more nearly resembling the English Fox than the small Corsac of the plains inhabits the Neilghierries; but no such animal is noticed in Mr. Elliot's catalogue.

In *Proc. Zool. Soc.* for 1837, p. 68, it is mentioned that "a new species of Fox, nearly allied to *Vulpes Bengalensis*, but evidently larger, Mr. Gray designated as *Vulpes xanthura*," but no description is there published, nor habitat assigned, though this notice follows some descriptions of Indian animals. Naturalists, therefore, are not bound to trouble themselves about the priority of the name, should they chance to meet with the animal here alluded to. It cannot, surely, be the "Fulvous-tailed Dog (*Canis chrysurus*, Gray)," a description of which is published in *Mag. Nat. Hist. N. S. I.* 157, and which is stated to inhabit India. I subjoin reasons, however, for suspecting that it is the same, and here indicate the animal as one regarding which further information would be acceptable.§

\* Red, grey, brown, and black Foxes are stated to have been formerly very numerous in the Aleutian Isles, whence the name of "Fox Islands" applied to this group, or rather chain. Does the American species extend across to Asia like the Rein Deer, Argali (?), &c. ?

† Captain Hutton remarks, of the Jackals of Simla, that "they do not appear to hunt in packs as they do in the plains, but are seen singly." *J. A. S.*, VI, 934. Is it certain that they are of the same species ?

‡ For further particulars concerning *V. montanus*, vide *J. A. S.*, VI, 934.

§ "Fur pale, foxy, varied with black-tipped rigid white hairs, which are most abundant on the sides, and only scattered on the hinder part of the back. Under fur soft, silky; of the back

The wild *Canidæ* of India may, I suspect, be reduced to the following species :—

Subgenus *Cuon*, Hodgson, vel *Chryseus*, H. Smith, perhaps comprising a plurality of species, though actual comparison of specimens is necessary to establish these.

“Upon the Himalaya,” writes Mr. Ogilby, “the common Wild Dog, called simply *Jungle Coota* in the plains, and *Buansu* in Nepal, [*Colsun* or] *C. Dukhunensis* of Sykes, and *C. primavæus* of Hodgson), is only found in the lower regions, but is replaced further up by two other wild species, likewise called *Jungle Coota* by English sportsmen. Lieutenant Smith informs me, that one of these is larger and the other smaller than the *Jungle Coota* of the plains, from which they both differ in having shorter tails and a lighter or more ashy colour: both species ascend the hills even to the snow-line; they hunt in packs, and inhabit ravines, and rocky dells; but being excessively shy, are not very often seen. The *Jungle Coota* of the plains, in other respects, does not appear to me to differ from the *C. Sumatrensis* of Hardwicke.”\* *Zoological Appendix to Royle’s Illustrations.*

Mr. Hodgson merely informs us, that “the breed of Tibet is large, and of a pale Wolf-like colour,” but he only possessed skins of “very young animals;” and this would seem to be the race observed by Moorcroft in his journey to Ladakh (Travels, I, 13), and by him styled “Wolves.” One of his party, in advance, disturbed a pack of them in the act of pulling down a Surrow, and having put them to flight, and secured their victim, “the Wolves kept prowling about us, and were not finally dispersed until several shots had been fired at them. They were of a reddish colour, with long, lank bodies, and bushy tails. The natives call them *Khoa*,” spelt *Qyo* by Dr. Spry and others, and *Quihoe* in Johnson’s ‘Indian Field Sports,’ referring to the animal of Central

fulvous; of the sides whitish; lead coloured at the base of the hairs. Cheeks, chin, throat, and belly, white. Sides of the chest, inner sides of the legs, yellowish white. Upper part of the legs, and anal region, bright reddish-fulvous. Tail cylindrical, reaching nearly to the ground, pale yellow, with a dark brown tip, and a large tuft of rather rigid hairs (placed over a large gland at its upper part near the base. Ears rather large acute, grey, and edged with black externally; internally, whitish. Length  $23\frac{1}{2}$  inches, tail 10 inches. Specimen in British Museum.”

From the particular mention of the caudal gland, in addition to the hue of the tail, I am really induced to suspect that this is, after all, no other than the *Vulpes xanthura* above referred to; for of the latter it is mentioned that “in describing this species, Mr. Gray remarked, that it had a large gland, covered with rigid brown hair, on the upper part of the base of its tail, very distinctly marked, and that on looking at the tail of the several other species of this genus, as *V. Bengalensis* [Corsac], *vulgaris*, *fulvus*, and some others, a similar gland was easily recognisable, though it appeared to have been hitherto overlooked.” The same may be seen on the tail of a Wolf or Jackal, as must, I should think, be familiar to most observers.

Mr. Gray also described, on the same occasion, a “*Canis procyonides* (Raccoon-faced Dog). Grey-brown, varied with black tips to the hairs. Cheeks and legs dark chocolate-brown. Tail short, thick, pale brown, with white tips to the hairs. Ears rounded, hairy. Length of head  $5\frac{1}{2}$  inches; body 17 inches; tail 5 inches. Inhabits China. Specimen in British Museum.” This animal is figured in the “Illustrations of Indian Zoology” of Messrs. Hardwicke and Gray, where undoubtedly it is made to look marvellously Raccoon-like.

In the same work is also figured a “Dooab Fox” (*V. rufescens*), but, so far as can be judged from the plates, it would not differ from the ordinary Corsul, unless in the total want of annulation to the fur, which is not very probable.

I republish these notices to aid the investigations of enquirers in this part of the world, and in hope of preventing, as much as possible, a needless multiplication of synonyms.

\* In the latter author’s description of the Sumatran wild Dog (*Lin. Trans. XIII, 236*), it is remarked that “the resemblance between this animal and the wild Dog of the Ramghur hills, called *Quao*, is strikingly close; the colour of both is the same, the black bushy tail the same, as also the form of the nose; but the ears of the Sumatran Dog are more rounded.”

India; terms which, as Colonel H. Smith remarks, "appear to signify imitations of the animal's voice when hunting."

From Herbert's 'Gleanings in Science,' I. 280, I extract the following: "The *Bhowsah* [Buansu] are found in many parts of the hills of North-western India: there are two kinds, one denominated the *Shikári*, and the other the *Lágh*: the latter is much stouter than the former, and its hair longer and darker; it is not so fleet as the *Shikári*, but possesses a much finer nose; it quickly regains the scent when lost by the *Shikári*: it takes the name of *Lagh* from eating the offal of its prey, which the *Shikári* does not."\*

A "Red Wolf" is mentioned by geographers as inhabiting the Great Altai; and "Wild Dogs," in addition to Wolves, Jackals, and Foxes, are noticed by Elphinstone to occur in Afghanistan. Such an animal is mentioned by Colonel H. Smith, as "the *Beluel* of Avicenna, which that author seems to have considered to be the *Thos* of antiquity. This," continues the learned naturalist cited, "we take to be the *Beluch* of Beloochistan, one of two species of wild canines found in the woody mountains of South-eastern Persia, and probably extending along the high lands West of the Indus into Cabul. It is described as a red wild Dog, very shy, and extremely ferocious, hunting by day in parties of twenty or thirty, seizing a Bullock or Buffalo without hesitation, and tearing the animal to pieces in a few moments. A British Officer, who traversed a part of this wild region of alternate jungle and sandy plateau, deeply scarred into long and parallel furrows, barren and vertical, so that no quadruped can cross many without complete exhaustion, observed a group of these red Dogs lying on the edge of the forest, yet on the watch for game, but they withdrew into cover before he could fire at or completely examine them: they were, however, long and rather low on the legs, of a rufous colour, with a hairy tail and a powerful structure: their foot-marks on the sandy soil were very distinct, and indicated that their feet were exactly like those of a Hound. The native peasants related that they keep aloof from human habitations, and consequently do little injury to human property; but that no animal, especially if it be entangled in the billowy ridges before mentioned, can escape their pursuit. Having demanded some particulars about their structure, they pointed to a domestic Dog then present, and said that the *Beluch* was much like it, but larger and destitute of white colour, which marked the domestic animal; but that there existed, further to the West, a wild species still larger than the red, which had so much white that the brown and black occurred upon its back in the form of spots." The account here given strikingly agrees with that of the Wild Dog of the Rajamahendri district furnished by Major Pew, and appended to Col. Sykes's description of the *Colsun* in *Trans. Roy. As. Soc.* III, 411, so that there can be very little, if any, doubt of their applying to the self-same species, together with the following.

"*The Red Wild Dog of Southern China*," continues Col. Smith, "is most likely another race or species of this subgenus. It is described as resembling the Dingo of

\* A corresponding distinction is said to obtain among the Wolves of North America. Thus, in Silliman's Journal, VI, 93, we read, of those of the Catskill mountains (a series of ranges extending from the vicinity of the St. Lawrence to the Alleghany ridge), that "Two varieties of Wolves are met with, one called by hunters the Deer Wolf, from his habit of pursuing Deer, for which his light Greyhound form adapts him: the other of a more clumsy figure, with short legs, and large body, more frequently depredates upon the flocks under the protection of man."

Australia, though somewhat lower on the legs; but whether this or the Beluch wants the second tubercular tooth, has not been ascertained." *Nat. Libr., Mam.*, IX, 173-5. In the tropical countries eastward of the Boorampooter, it has been generally understood that no wild canine animal exists, as appears to be truly the case with the Jackal; but I have information (and trust to receive specimens) of two species, differing much in size and habits, from the interior of Burmah, besides which I am told that "a Fox resembling that of Bengal, but of a darker colour, and altogether more resembling the English species except in size," inhabits the Siamese hills. "Wolves" are mentioned in Capt. Low's list of the animals of Tenasserim (*Journ. Roy. As. Soc.*, III, 50), "and Wolves, or perhaps wild Dogs," are elsewhere stated by him to inhabit the same range of territory. In Dr. Richardson's 'Mission to the Court of Siam,' (*J. A. S.*, IX, 5), Hares are mentioned,\* "and Wild Dogs are said to be numerous here [near Camboorie], larger, with longer hair than the common Dog, but equally varying in colour." These would seem to be scarcely referrible to the present group.† In Sumatra, we have seen that they exist, and Sir Stamford Raffles alludes to more than one race in Java (*Lin. Trans.* XIII, 249), remarking that how far the Sumatran animal "differs from either of those of Java, Dr. Horsfield will be able to decide." I am unaware, however, that the latter naturalist has published any notice on the subject. Dr. Solomon Muller, if I remember rightly, mentions them by the name of *Canis rutilus*, as alike inhabiting Sumatra, Java, and Borneo (?); and a Java specimen was first taken to Europe by M. Leschenhault, "in size and in proportions equal to a common Wolf, but the ears are smaller; the colour is fulvous-brown, blackish on the back, feet, and tail." Within the Indian Peninsula, the *Colsun* of Sykes, according to Mr. W. Elliot, "was not known in the Southern Mahratta country until of late years. It has now become very common."‡

\* Vide my Report for January, *ante*, p. 102.

† In a notice of some of the animals of the Tenasserim provinces, published in the *Bengal Sporting Magazine* for August, 1841, page 44, we read that — "The Wolf is said by the natives to have been in the country of the Kareans, as also the Wild Dog; but their accounts are not much to be relied on." It is at least probable, however, that wild canine animals of some kind are alluded to.

‡ *Madras Journal*, No. XXIV, 100. I may here cite a very interesting notice of this animal in the 'Madras Journal,' No. XIV, 81: "The animal termed by us the Wild Dog," writes Captain A. Mackintosh, "is known to the natives by the name of *Kollussnah*, *Kollusra*, and *Kollusa*. It is common in the Kotool district, and all along the range of western Ghauts. It is about the size of a Panther [which would be very much larger than any I have seen], with very powerful fore-quarters, narrow tapering loins, black and pointed muzzle, and small erect ears. The tail is long, and at the extremity there is a bunch of hair several inches in length. The *Kullussnah* is of a darkish red colour, possesses great speed, and hunts in packs of five, eight, fifteen, and even to the number of twenty-five; is extremely active, artful, and cunning in mastering its prey. It is during the night-time they move about in search of food; but, should an animal approach near them, an hour or two after sunrise, or a short time before sunset, they will attack it — all animals seem instinctively to dread them. During the day-time, they remain quiet in their hiding-places. When the *Kollussnah* discovers an animal worthy of being captured, the circumstance is announced to the pack by a barking, whistling voice; the others are on the alert, advance rapidly and post themselves slyly round the spot, and gradually close in on the animal. Upon seeing one or two of the *Kollussnahs* he gets frightened, but much more so when, running away at speed, he encounters one of his enemies in whichever direction he attempts to escape. The consequence is, that he stands quite amazed. Some of the *Kollussnahs* run in close to him, and shed water on their bushy tails, which they swing about and jerk into his eyes; he is successively saluted



To sum up, Colonel H. Smith remarks, that—"On reviewing the notices of the present group of Wild Dogs, whether they be one or several species, it is evident that they extend their habitat over an immense surface of Asia; and since they are found to the westward of the Indus, it is likely they inhabit the deep forests along the Caspian, and continuing in the same parallel of latitude, that they have existed and possibly may still be found in the mountains of Asia Minor. If, now, we compare the foregoing descriptions [*Nat. Libr., Mam.*, vol. 1X,] with the account of *λυκος Ξουρος* or *Aureus* of Oppian, which he relates was a resident of the rocky jungles of Mount Amanus and Taurus of Cilicia, a province where he, the poet, naturalist, and sportsman, was born, we cannot suppose that he spoke wholly from hearsay, and ignorant of the characters of his Golden Wolf, mistook it for a Jackal, then not frequent so far to the North; but which in comparison is insignificant, does not fear the heat, nor retires during the appearance of the Dog-star\*; is not of a bright fulvous colour, but greyish in Natolia; is not to be mistaken on account of its howling; burrows in the vicinity of human habitations; is the reverse of a shy and solitary nature; and finally is not noticed by him under another name.† The uncertainty and confusion respecting this group commenced with the ancients, who ranged in all probability not less than three very different canines under the name of *Thoes*. Pliny speaking of a *Thos*, which he viewed as a kind of Wolf, merely remarks, that it had a longer body, shorter legs, sprang with velocity, and lived by hunting; adding, not dangerous to man.‡

in the same manner, when he approaches them, or they run into him. The unlucky beast is soon blinded by the peculiar escharotic quality of the application; for he begins to stagger and run round and round, and is now beset by all the Kollussnahs who make a loud barking and snapping noise while they pull the animal down and tear it in pieces. When few in number, they have been known to gratify their hunger before the poor animal fell down and expired, each of them tearing away a mouthful while their victim remained standing. There are very few instances of their ever having attacked the villagers' cattle, but they will kill stray calves if they fall in with them. The Kolies never molest the Kollussnah, in fact they are glad to see them in their neighbourhood, being aware of the enmity that exists between them and the Tiger, for they kill that animal occasionally; and in consequence they are considered by the people as the protectors of their cattle and their fields, for neither Sambur, Deer, or Hog, seem disposed to approach places much frequented by the Kollussnah. They hunt and kill the Sambur, Neelgaie, Hyæna, Deer, Jackals, Hares, Hogs, Bears, Porcupines, and Quails. They killed a Tiger in June, last year, in the Taloongun jungles."

For a detailed account of the *Buansu* or wild Dog of Nipal, by Mr. Hodgson, vide *As. Res.* XVIII, pt. II, where also are given comparative figures of this animal, the common Indian Fox, and the Jackal. A writer in the Bengal Sporting Magazine, for 1838, p. 404, mentions, that on removing the skin of a "Wild Dog," which he shot near Saugor, "hundreds and hundreds of thorns, of bushes and the spear-grass, were observed lying in the thin membrane between it and the muscles; everywhere, but chiefly in the front part of the fore and hind legs; there was no symptom of inflammation from them, except in two wounds where a little matter had formed: the coat was quite smooth, and there was no vestige of parasites about the animal." The same writer mentions the cry of these creatures when in pursuit of prey, as "the palpable bark of the Dog, but shorter and not so deep, and I thought at the time, as they rushed by me on the right and left, that there was something very angry in the tone of it. Their run was perfectly beautiful, and all together they disappeared, eight in number, over the bill, still preserving the form of a row."

\* *Sirium orientem metuit.*

† Oppian's *Thous* was a spotted animal.

‡ "*Luporum genus est (Thos) procerius longitudine brevis crurum, dissimile velox saltu, venatu vivens innocuum homini.*" *Pliny*. *Ælian's Thoes* may be Jackals: but the *Thoes* of Homer, described as put to flight by the Liou, while they surrounded the Stag at bay, cannot be Jackals but the *Chryseus*. So also is the *Thos* of Aristotle, when he notices their engaging the Lion.

All these characters are perfectly applicable to the *Chryseus* of our type, and to its varieties. The mistaking of Oppian commenced with Belon; and Kæmpfer, being unacquainted with the existence of the rufous Wild Dog, referred *Aureus* to the Jackal, and misled Linnæus.\*

\* "It is even more likely," continues Col. Smith, "that from this group the mixture with a domestic race might be reported to have been obtained, which the ancients, and even Aristotle, repeatedly assert to be the *Alopecides* or the Chaonian and Spartan breeds, but which, from their strength and courage, could never have resulted from crossing Dogs with Foxes.

"There is some reason to presume that the *Chryseus* formerly existed in Southern Europe: for to what other species can we refer the kind of Wild Dogs noticed by Sealiger, as existing in the woods of Montifalcone in Italy. 'There resided,' he says, 'for ages about Montifalcone, a species of wild Dogs; animals differing from Wolves in manners, voice, and colours; never mixing with them, and being particularly fond of human flesh.' This last character may have been a gratuitous addition of his informants: he does not, in this paragraph, notice the particular colour, but, in another part of the work, wild Dogs of a rufous colour are incidentally recorded. A family of the name of Montifalcone bore a Wolf salient gules; while another of the same name had red Dogs for supporters, in a collection of blazoned Italian arms in the Library of St. Mark at Venice."

I shall now proceed to invite the attention of observers to the following notices by the same indefatigable and learned Zoologist:—

1st.—"With some hesitation we place here the short notice of the *Wak*, a canine designated as a *Dhole*, but possibly a very distinct species. It was first mentioned to us by the late Lieut. Col. Deare, of the 8th Dragoons, who was a native of the East Indies, a keen sportsman, and many years resident in that part of the world. A printed account of a similar animal, observed in captivity, has since appeared in one of the Annuals: both agree in the description, one having been killed in Central India, the other seen in the Southern Provinces. This *Dhole* was represented to be a robust thick-bodied animal, nearly equal in height to a harrier hound, but heavier in weight; the head broad and ponderous; the forehead flat, with a greater distance from the ears to the eyes than from these to the nose; this was blunt, dark-coloured, and rather broad, the rictus or gape black, opening to beneath the eyes, which were of a greenish-yellow, set in dark eye-lids, and offering a most ferocious aspect; the teeth powerful; the legs and claws remarkably strong, resembling a Bull-Dog's; and the tail rather short, but more bushy towards the end, and sooty in colour: the general colour of the fur tanned, browner on the back, and some white on the breast, belly, and between the limbs. It growled with a deep threatening voice, and the natives related that, in danger, the animal, by means of the tail, flings its urine in the eyes of the pursuers. The Colonel considered this not to be the true *Dhole*, and characterized it as reminding the spectator of a low legged Hyæna with the colour of a Dog; but he was too familiar with the *Hoondar* (or Hyæna) to mistake it for that animal. It was reported to hunt in packs, uttering an occasional deep-toned bay.

2nd.—"The true *Dhole* (*Chryseus Scylax*, H. Smith; *Dhole* of Captain Williamsou, and *Quihoe* of Dr. Daniel Johnson). These names here brought in juxta-position, shew how much confusion there exists in designating this and other species among the natives of India; a confusion they extend to Hyænas and Wolves. *Qyo*, *Quihoe* and *Qao*, appear to signify imitations of the animal's voice when hunting; *Dhole*, a Praerit name; but it is evident that where the names of *Hoondar* and *Beriah* (Hyæna and Wolf) are considered synonymous, species still more indistinctly marked may well be expected to be confounded. The *Scylax* is described to be in size between the Wolf and Jackal, slightly made, of a light bay colour, with a sharp face, and fierce keen eyes; in form approaching a Grey-hound; the tail straight, not bushy; the ears wide, pointed, open, and forming a triangle; the skin dark; nose, muzzle, back of the ears, and feet, sooty. From this description the animal differs from *primævus* and the other races, in being more slender and higher on the legs, in having a sharper muzzle, a long close-haired tail, and large dark ears. It is reported to hunt in packs of greater numbers, to utter a cry, while on the scent, resembling the voice of a Fox-hound, intermixed with occasional snarling yelps. Dr. Daniel Johnson witnessed a pack attacking a wild Boar.

"The drawing we possess of *Scylax* was taken from a carefully executed Indian water colour painting, observed in a collection on sale in London, some years before Captain Williamson's 'Oriental Field Sports' was published. Colonel Deare, then a Captain, was about this time in



The Australian Dingo is generally referred to this particular group of Canines, but differs from the rest (if more than one species) hitherto examined, in possessing a second true molar in the lower jaw, wherein the *Colsun* or *Buansu* differs from all others of its natural family (so far as known), wild or tame, with the exception of a Brazilian fossil species recently discovered by Dr. Lund. This character alone supplies an insurmountable objection to the hypothesis of Domestic Dogs having derived from the so called *Canis primævus*.

2. *Canis Lupus*; the Wolf: considered as a peculiar species (*C. pallipes*) by Col. Sykes. Mr. Walter Elliot, however, remarks, that "this species does not appear to differ from the common Wolf. Three young ones which I had alive for some time agreed very well with the description of the *Canis pallipes* of Col. Sykes, but several adults that I shot differed in their colours and general character. The head was large, the muzzle thicker, the colours in some cases more inclining to red, particularly on the fore-legs, which in some cases were deep red; and the same colour was found on the muzzle from the eyes to the nose. Others have more rufous on the hind-legs, together with some black on the thighs, rump, and tip of the tail [European Wolves vary in like manner]. Length from muzzle to insertion of tail thirty-six to thirty-seven inches, ditto of tail sixteen to seventeen inches and a half; height of shoulder twenty-four to twenty-six inches; length of the head ten inches; circumference of ditto, sixteen or seventeen inches; weight of an adult female 42 lbs."

The Wolf appears to be numerous on the open plains of India, but to be generally unknown in the wooded hilly parts. Col. Sykes informs us, that "they are not met with in the woods of the Ghauts" of Dukhun; nor is the species mentioned in Mr. Hodgson's 'Classified Cata'ogue of the Mammals of Nepâl' (*J. A. S.*, X, 908).\* Col.

London, and the copy being shewn him, he first conveyed the information that it represented the *Dhole*, or, as he termed it, the *true Dhole*, distinct in form from the other species already mentioned. In Europe, that name was then only known to a very few persons who had previously resided in India. Specimens occur, it seems, very rarely, and these only in the Rhamghany hills, and sometimes in the Western Ghauts." This may be one of the Himalayan races mentioned by Mr. Ogilby and others.

3rd.—"The *Dhole* of Ceylon (*Canis Ceylonicus*, Shaw). First described by Vosmæer. This species is evidently much allied to the last mentioned, although the account of it was not taken from an adult. The stuffed specimen was not much larger than a domestic Cat, measuring about twenty-two inches from nose to tail, the tail itself sixteen inches, gradually tapering to a point; the colour yellowish-grey with a cast of brown, owing to some hairs of that colour being longer than the rest; the feet strongly tinged with brown; the hair close but soft to the touch; the head long and pointed; the snout and under chin brown, but the top of the head yellowish-ash colour, which, passing beyond the ears, forms a spot below them and terminates in a point below the eyes; the ears were small, elevated, and pointed. In this specimen, the last molar of the lower jaw was also wanting [from immaturity?] The claws resembled those of a Cat more than of a Dog, and there were five toes on the hind as well as on the fore feet. We have examined, in Holland, the skin of a Dog which was said to have come from Ceylon, and corresponded sufficiently to admit of its being the same species, although it was at least four inches longer, and the colours were less grey and more fulvous; the tail was long and without a bush, and the claws blunt, but with five on each foot. It is evident that the discrepancies between the two were owing to nonage in Boddært's specimen. The skull we have not seen."

All these notices require exceedingly to be verified upon examination of specimens.

\* "The common Wolf is numerous in the plains, but I have never seen or even heard of them in the Himalaya.

"The Jackal is rare there, and I have never met with them but in the low and warm valleys."—*The Rev. R. Everest on the power of enduring cold in the Mammalia of Hot Countries.*—*Mag. Nat. Hist.*, January, 1842.

Smith seems to believe in the existence of a smaller race, "lower, with a broader back, and of a light grey colour, obscurely marked with darker cross bars, from the tips of the hairs being black; the limbs and face pale buff. A specimen, shot among the rocks on the sea-shore, near Vincovab, in the vicinity of Bombay, was in colour yellowish-grey, brindled with blackish streaks: the head was sharp: the under-parts dirty-white; the tail not very hairy, whitish below, and the markings on the body distinct. It was killed in the act of searching for offal and putrid animal matter cast on shore by the sea."\*

3. *C. aureus*; the Jackal. Common to all India westward of the Boorampooter, and extending (without satisfactorily known variation) to Anatolia, Turkey, the Island of Candia, part of Greece, and the southernmost confines of Russia; but, I believe, unknown in Africa, where represented by allied species. Syria and the north-east of Africa are, indeed, remarkable for the variety of small indigenous canines described by Ruppell and by Hemprich and Ehrenberg; and the following has, probably, still to be added to their number (vide Kotzebue's 'Journey to Persia', p. 62). "In Grusia, among the beasts of prey, there is a species of Jackal which is called *Tshakatka*. It resembles the Wolf, but is smaller and has a much more ferocious appearance; its howl shakes the very soul. The animal is, besides, very bold, and sneaks during the night into the camp to steal the soldiers' boots. When very hungry, it enters burial grounds and digs up the bodies recently interred." It is thus a true Jackal, but there is reason to suspect a larger species than the common one.

4. *C. chrysurus*, Gray, vel (?) *Vulpes xanthura*, Gray, already noticed.

5. *Vulpes Corsac*, v. *Bengalensis*, *Indicus*, et *Kokree*. Mr. Elliot states of this species, that "it is remarkable that though the brush is generally tipped with black, a white one is occasionally found [*i. e.* in the Southern Mahratta country], while in other parts of India, as in Cutch, the tip is always white." In Bengal I have hitherto found it invariably black-tipped. This animal appears to be common throughout India, extending, it would seem, westward of the Indus and into Tartary. The varieties(?) mentioned by Elphinstone, as already cited, inhabiting the Western Indian desert, require investigation; as also the Doonab Fox of Hardwicke and Gray.

6. *V. montanus*, vel *Himalaicus*, vel? *Nipalensis* et *Hodgsonii* of Gray, the latter probably mere varieties of colour, and not more different from the ordinary type than the beautiful specimen exhibited on this occasion. The Neilgherry Fox is, probably, an additional species, unless it prove to be Mr. Gray's *Chrysurus* vel? *Xanthura* which however is unlikely.

From Mr. J. J. Atbanass, have been received ten heads of the Indian Antelope (*Antilope Cervicapra*), one only being that of a female, and among those of males there is one remarkable for the deformity of its right horn, which curves shortly round to form a circle and is then broken off: this horn indeed considerably resembles that of a castrated individual which lived some years in the London Zoological Gardens, and which possessed a horn on one side only, of similar flexure, the other side having no more trace of it than in the female of this species; and it may be, therefore, that the testis of the corresponding side had been injured in the animal whose head is now exhibited, a circumstance which, in the Cervine genus, is well known to affect the

\* Communicated to Col. Smith by Col. Dunsterville, H. C. S., who was present.

development of the antler of that side; and a very curious circumstance is related (*Lin. Trans.* II, 356,) of a female *Cervus Elaphus*, "which had one horn perfectly similar to that of a Stag three years old. It never had a horn on the other side of its head, for there the corresponding place was covered over by the skin, and quite smooth. It did not seem to have ever produced a fawn, and upon dissection, the *ovarium* on the same side with the horn, was found to be schirrous." The true facts relative to the development of antlers in castrated Deer, as observed in a number annually gelded in the Royal demesne of Richmond Park, do not appear to be generally known: the antlers which the animal had borne at the time of the operation are shed in due season, though later than in the perfect animals, and they are regularly succeeded by others which never fall, nor cease growing from time to time, slowly and weakly, and shooting forth most irregularly with regard to shape, the velvet, or hairy skin investing them, being, under these circumstances, of course permanent; though (at least in some groups) it appears that where this animal is emasculated while young, the antlers do not appear at all, as instanced by a "heaver" or ox Sambur (*C. Hippelaphus*,) whose skeleton is in the Museum of this Society. The currently received doctrine on this subject is still that of Buffon (*Hist. Nat.* VI, 81), who asserts "Si l'on fait cette opération dans le temps qu'il a mis bas sa tête, il ne s'en forme pas une nouvelle; et si on ne la fait au contraire que dans le temps qu'il a refait sa tête, elle ne tombe plus, l'animal en un mot reste pour tout la vie dans l'état on il étoit lorsqu'il a subi la castration," which appears to be taken for granted by all subsequent writers.\* I may take this opportunity, too, to remark that in the park surrounding Government House, at Madras, there is a very large herd of Indian Antelopes, being the posterity of a single tame pair. The gentleness and familiarity of these beautiful creatures surprised me considerably, knowing how dangerous a solitary tame one is apt to be, particularly when its range is limited; but I learned that not a single accident had ever happened in the present instance, though the bucks are commonly heard groaning and fighting at nights. As I drove past them, they were lying and grazing on each side as quietly as Sheep, and now and then two or three would be seen skipping after each other, more lightly than Fallow Deer, which latter they much resembled in their trot. Among the whole large herd, I observed but a single coal-black male, though very many had fully developed horns; nor is more than one such ever seen, I believe, in the wild herds, however extensive, the rest being driven off as they attain complete maturity.

*Gazella cora*, H. Smith (vide page 452, *ante*); seven heads, including two of females.

*Cervus Axis*: two heads.

*Gavins Gangeticus*: a large stuffed specimen, and the head of a smaller one.

From — Hamilton, Esq. C. S., of Mirzapore,

*Hyæ: vulgaris* v. *virgata*: skin and skeleton. The former has, with considerable patience and difficulty, been mounted, and now forms a very tolerable stuffed specimen.

From G. Hugon, Esq. two frontlets of Deer, from the Mauritius. What this Deer is, if described at all, I do not know, though I have long been acquainted with the

\* For the above interesting piece of information relative to the *heavers* of Richmond Park, I am indebted to the celebrated animal painter, Mr. Hill, who shewed me a number of specimens illustrative of the fact.—E. B.

skull and antlers of the species, of which there is a fine specimen in the London United Service Museum, and a frontlet in the private collection of Mr. Hill: there was also previously an example of the skull of this animal in the Museum of this Society. In *Proc. Zool. Soc.*, for 1831, 45, the late M. Desjardins enumerates *Cervus Elaphus* in his Catalogue of Mauritius animals, which, if referring to the present species, as must be supposed, is a strange error. Duvaux, in his 'Letters from the Mauritius' (p. 295), remarks, that "the Stags [of that island] are much smaller, and of a greyer colour, than those of Europe, and are supposed to have been introduced by the Portuguese." A friend who has hunted them can merely inform me that they have a remarkably shaggy coat, but at once recognized the Society's former specimen above alluded to as belonging to the species. The antlers are proportionably large, and might be mistaken by even a practised eye for those of the Samhur (*C. Hippelaphus*); but the skull is considerably smaller than in that animal, and accordingly the antlers are nearer together at base: in every specimen which I have seen, the inner tine of the terminal fork is very much longer than the outer one, being the reverse of what obtains in the common Spotted Axis, while in the Samhur and Jerrow, although this character is variable, the relative proportion is generally as in the present species, but to a less extent. In size the skull in the United Service Museum is larger than that which we possess, measuring (according to my notes) thirteen inches in total length, or from occipital ridge to the tip of *nasals*, over the curves, twelve inches; orbits apart posteriorly five inches, anteriorly four inches and a quarter; palate five inches, and two inches wide posteriorly. The pedicles of the antlers are one inch long, measuring on the inside, and those of the three frontlets before me are equally elongated, although the antlers are of full dimensions; the latter measuring, in the London specimen, thirty inches long, six inches and a half round above burr, and four inches and three quarters in the beam; the corresponding measurements, in the three specimens before me, being thirty, seven, and four and a half inches,—twenty-eight, seven and a quarter, and four and a half inches,—and twenty-eight, six, and four inches: they have the set and general form of those of the Samhur and Axis, and not (as in *C. equinus*, *Molluccensis*, and some other large Malayan species,) that of the common Hog Deer; and their granulated surface likewise resembles that of the Samhur's antlers. The skull in the Society's collection has its intermaxillaries imperfect, and the occiput is also incomplete; but from base of pedicle to tip of *nasals* it measures but eight inches and one-eighth, the greatest width of orbits apart posteriorly five inches, and anteriorly three inches and three-quarters, length of bony palate four inches and five-eighths, and width posteriorly two inches: there are the sockets of two small canines, but all the teeth are lost. Further information respecting, and especially specimens of, this animal are desirable, and there can be little or no doubt that it was originally imported from some part of the Malayan Archipelago.

From Captain Ommanay, has been received a specimen of *Eurylaimus nasutus*, v. *Todus nasutus*, Gmelin, *Cymbirynchus nasutus*, Vigors, and *Eur. lemniscatus*, Raffles.

From Robert Ince, Esq., Supt. of Salt Chokees, Zillah Backergunge, a specimen of a timber-perforating Worm, accompanied with the following particulars:—"Specimen of the Worm which destroys boats or timber while floating in the rivers of the eastern district of Bengal, more particularly in and near Backergunge and Furreed-



pore. This creature perforates the wood, leaving a mucilaginous deposit which hardens into a shelly substance. It is only found during the hot months, and is termed by the natives *Noona Kheen* ("Salt Worm"), as it is believed to be never met with out of brackish water, *i. e.* beyond the influence of the tides during the S. W. monsoon. Soondree wood is particularly liable to its attacks. The natives destroy the creature by hauling their boats ashore, and burning stubble beneath them."

This Worm combines the general form of *Nereis* with distinct eyes as in *Phyllodyce*, and is therefore inadmissible into any of the described genera with which I am acquainted. As in the former, its proboscis is furnished with a single pair of strong serrated mandibles or nippers, and there are three minute tentacles on each side posterior to its base; beside which, over the inner margin of each eye, is a rudimental *antenna* existing as a small tubercle. The rings of the body are very numerous, and are each furnished (as in *Nereis*,) with a branchial lamina, but having only one minute tubercle and small packet of bristles beneath. Length eight inches and a half, and present colour of specimen livid-white, becoming dark purplish towards the head; the proboscis white, and jaws horny-black. The natural colour is mentioned by Mr. Ince to be flesh-red. I shall designate it *Lignicola destructor*. Mr. Ince has promised a specimen of the timber perforated by it, and the Worm now presented to the Society was taken out of the bottom of the Chokee boat attached to the Superintendent's office of Backergunge.\*

To the zoologist it will convey no information to be told that this and analogous species merely bore for a habitation, a fact sufficiently implied by the existence of visual organs in the specimen now exhibited, which would intimate that it watched for its prey at the entrance of its hole, as various allied genera are known to feel for it with their tentacles, these being, in the *Lignicola*, too minute to be of much efficacy for the purpose.

The specimens of *Vertebrata* procured in the neighbourhood during the past month have not been generally of much interest, owing to the impossibility of myself devoting any time to collecting, and the incorrigible worthlessness of the native Shikarees, by whose agency I have hitherto endeavoured to procure specimens. The most worthy of notice is an example of *Megaderma lyra*, which I myself took in the act of preying upon another Bat, the interesting circumstances connected therewith have been described in an article now printing for the Society's Journal.† Another speci-

\* The specimen of perforated wood here adverted to has since been received, being completely honey-combed all over, the ravages of the Worm producing much the same appearance as those of the *Teredo navalis*.

† Vide page 255 *ante*. I have since made a capture of eight specimens of this Bat, from an assemblage of thirty or forty, (and I can procure others of these when I please), that pass the day hanging to the roof of a long roomy out-house, selecting a not very dark situation (as the *Rhinolophi* are said to do), though when disturbed they rarely attempt to escape by the open windows, being evidently much more incommoded by bright day-light than the restricted *Vespertilion*es, and when they do so pass out very soon settling upon any tree near at hand, and suffering themselves to be taken by an insect-net. Of these eight adult specimens, only two were males, intimating, however, that the sexes do not assemble separately, as is the case with various other Bats, while it is pretty clear that the females much exceed the males in number. The *Pteropodes* are also stated to herd in separate flocks, the males apart from the females, which I doubt; but here, again, it would seem that the females are much more numerous than the males, for of twelve specimens

men of *Pachysoma marginatum* has also been obtained, which had contrived to drown itself in a vessel of water in the Society's compound, and is at present prepared as a skeleton.

In the class of Birds, the mass of small waders are now in beautiful summer plumage, and as fast as we can obtain specimens uninjured by the ruthless hands of the native dealers in the bazaar, they are secured for the Museum, or to be set aside for exchanges; but it is most provoking to observe the numbers of fine specimens, which despite all that can be said and reiterated to these people *ad nauseam*, the stolid savages persist in partially stripping of their feathers, or otherwise injuring so as to render them quite unfit for preservation; in illustration of which it will be enough to mention that out of the many hundreds of common Curlews (*Numenius arquata*) which have been brought to the bazaar in the course of the season, I have not yet been able to furnish the Museum with examples of this abundant species.

There is a curious fact relating to the changes of plumage in these birds, which I do not think has ever been distinctly stated: viz. that whilst they actually change their plumage, by renewal of the feathers, to a greater or less extent, the changes of colour are independent of the renovation of the feathers; thus the old feathers, prior to being shed, will be seen to have acquired more or less of the hue of the new ones which replace them; and these, in their turn, soon after the bird has bred, and long before the autumnal moult, gradually lose the hue which distinguishes the nuptial livery;\* the latter is particularly exemplified by *Totanus fuscus*, wherein the deep sooty hue which imbues even the legs, in addition to the entire plumage, of this bird in nuptial garb (as illustrated by specimens now exhibited,) disappears totally after breeding in the same feathers, as I have witnessed in every stage of this absorption of colouring matter, so that the bird resumes very nearly the aspect of its winter uniform. It may further be observed, that, at the vernal moult, the amount of renovation of the feathers, and the period at which this takes place, are both very irregular, depending on the constitutional vigour of the individual; some weakly birds, both young and adults, the latter probably such as are past breeding, or otherwise sexually debilitated, undergoing little or no change even of colouring. It is also a remarkable fact, that when a bird drops its feathers at the regular moulting period, it sheds them alike whether new or old, even such as had grown in place of others that had been accidentally pulled out but a few weeks previously; while, if from debility or any other cause, as sometimes happens in a specimen newly caught and caged, the feathers do not fall at the proper season, they then remain till the next ordinary moulting period, however distant, *i. e.* for another year in what are termed "single moulting" species.

*Circus Swainsonii*, A. Smith, *v. pallidus* of Sykes, female.

*Emberiza fucata*†? Pallas, Shaw's 'Zoology' IX, 385: described as "common on the rivers Onon and Trigodia, in Russia." A bird answering to the brief description by Shaw, is plentiful in the neighbourhood of Calcutta, to judge from its being

passing over which I lately brought down, I could only get a single male. Collecting so many has enabled me to decide, that the specimen noticed in Vol. X, p. 840, does not differ specifically from the *Ph. Edwardsii* vel *medius*, Auctorum.

\* I have even observed that, not unfrequently, the new feathers put forth at the vernal moult are only partially of the colour they afterwards assume.—E. B.

† Identified by Mr. Jerdon with his doubtfully cited *E. cia*. *Madr. Jl.* No. XXVI, 29.—E. B.



frequently brought for sale in the medley of species purchased as "Ortolans" by Europeans. I have long waited for uninjured specimens, and now exhibit two males and a female that at least have one side perfect. Size of the Cirl Bunting, and allied to this species in form. Length six inches, by nearly ten inches across; wing two inches and seven-eighths, and middle tail-feathers two inches and a half, the external rather more; bill to forehead (through the feathers) above half an inch, and the same to gape; tarse seven-eighths of an inch: head, with the back and sides of the neck, dark grey, having a black medial streak to each feather, most developed on those of the crown; ear-coverts forming a conspicuous deep rufous spot; shoulders of the wings, scapularies, and rump, the same but not so dark, also a band crossing the lower part of the breast, more or less developed; inter-scapularies or dorsal feathers resembling those of a male common House Sparrow; throat, fore-neck, and breast, to the rufous band, whitish or slightly yellowish-white, with a narrow black streak commencing at each corner of the lower mandible, widening or spreading as it descends, and then branching to form a gorget with its opposite, being more or less developed in different specimens; the sides of the breast, below this gorget are purer white, and the belly, below the rufous band, is tinged with fulvous; a light streak over the eye; wings dusky within, the feathers edged externally with rufous and fulvous, and the outermost tail-feather obliquely marked with white, the next but slightly so. Irides dark. Bill (at this season) dusky above, lighter on parts of the lower mandible; and feet pale brown with a slight livid cast. The female merely differs in being rather smaller with the colours less bright.

The only other Indian species we possess of this genus appears to have been several times described, firstly by Mr. Vigors, (*P. Z. S.* 1831, 183,) as *E. cristata*, then by Messrs. Jardine and Selby, (*Ill. Orn.* pl. CXXXII,) as *E. erythropterus*, and lastly by Mr. Hodgson, (*As. Res.* XLX, 157,) as *E. Nipulensis*: at least our specimens agree alike with all the descriptions here cited; and I even incline to doubt whether the *E. subcristata* of Col. Sykes, (*P. Z. S.* 1832, 93,) be aught else than the female, which opinion he indeed combats, albeit there would appear to be certain differences, to judge from his description.\*

I have also obtained two curious small marsh birds in the bazaar, which are not easy to classify; being referrible, indeed, to an extensive group allied to the *Salicuriæ*, to the *Priniæ*, and to that African subdivision formerly included in *Mahurus*, and which group has not been, that I am aware of, duly studied in all its diversified ramifications. The first, however, I shall provisionally arrange as

*Dasyornis? locustelloides*, from the near resemblance which it bears in plumage to the Locustelle, or Grasshopper-bird, (*Locustella Raii*,) of the British Islands.† In form it appears to be closely allied to the *D. Australis* of Messrs. Jardine and Selby, figured in the "Illustrations of Ornithology," pl. LXXIII; but, on actual comparison, will probably prove separable as a minimum subdivision. Length seven inches, by nine inches in extent of wing, the latter from bend two inches and seven-eighths, and medial tail-feathers eight inches; bill to forehead (through the feathers) five-eighths of an inch, and nearly seven-eighths of an inch to gape; tarse an inch and one-sixteenth: the bill is strong, three-sixteenths of an inch deep, and compressed laterally,

\* The Society has since received *E. citreola* from Mr. Hodgson.

† It is, I now find, the *Megalurus? striatus* of Mr. Jerdon's Supplement, a single specimen having been procured by that naturalist on the Neilghierries.

but otherwise resembles that of the *Salicariæ*, and between the rictus and eye are five remarkably strong bristles, forming an almost vertical range, with a small bare space in front of them, and they are curved stiffly outwards, as if the object were to defend the eyes; there are likewise small setæ at the base of the lower mandible: the wings and tail have also the true character stated of *Dasyornis*, as well as (it would appear) the feet. General colour olive-brown, with mesial blackish streaks to the feathers; the throat and belly white, and breast and flanks light brown, the breast having a few traces of darker specks: tail graduated, each feather tipped with fulvous-white, and the rest dusky along the centres, and brownish barred with dusky externally. Irides dark greyish olive. Bill dark olive-brown above, beneath paler; and legs light purplish-brown. The specimen described was a female.\*

The other species is considerably superior in size, with proportionally much larger and stouter legs, a straight and slender bill, and long, somewhat sharp-pointed tail, the feathers of which are exceedingly graduated; rictorial bristles small and inconspicuous. Its genus would seem to be *Megaturus*, and the specimen has unfortunately its wings and tail so much mutilated by the bazaar people, that I shall not offer a further description. A curious feature consisted in the inside of the mouth being wholly blackish, while the bill was of a livid colour suffused above with blackish, which is probably a seasonal distinction.

*Cryptonyx coronatus*: recent female, from Singapore, presented by myself.

The magnificent specimen of the Himalayan Lammergeyer (*Gypætos*), exhibited at the last Meeting of the Society, has been mounted, together with some other skins, and more are now in progress of being set up.

Recurring to the class of Mammalia, I noticed, in a previous Report (*ante*, pp. 95-8 *et seq.*), the existence of three species of Otter in the Hooghly, in addition to a Darjeeling species there also described; and I may now announce the existence of a fourth species in the Hooghly, or at least which I infer to have been thence obtained, since our Museum contains two specimens of the skull, marked "common Otter," and which from their size I had hitherto referred to *Lutra leptonyx*. Upon recently, however, having had the skulls of *L. leptonyx* and *L. nair* taken out from the skins and cleaned, it became at once apparent that the species previously referred to the former was quite distinct, the skulls differing in being very much more compressed between the orbits, in the still inferior size although the age is greater, in the further development of the post-orbital processes in both specimens, and a variety of

\* I have since obtained another species of the same minimum group, but so wretchedly mutilated by the bazar shikaree who caught it, and also smeared with bird-lime, that I can hardly venture upon a description. Not content with plucking out the large feathers of one wing and of the tail, the cruel brute had broken its lower mandible to prevent its biting, as is the custom of these people with Cormorants, Herons, and such other birds whose peck is worthy of some precaution to avoid: otherwise I think I might have kept it for a while alive. It is considerably larger than *D. locusteloides*, (*striatus*,) with legs proportionably larger, and the beak much less compressed laterally. Plumage very like that of the other, but a well developed whitish streak over the eye, the brown a shade less fulvous, and the blackish mesial streak to each coronal feather less defined and contrasting. Irides dusky olive: bill and inside of the mouth wholly blackish: and legs dull purplish-brown. Length, to base of tail, four inches and five-eighths, of wing three inches and a half, and tarse one inch and a quarter; bill to forehead (through the feathers) nine-sixteenths of an inch, and to gape, (which is armed with five strong outward-curved setæ, as in the other,) one inch and three-fourths. I shall provisionally designate this species *D. colluriceps*.—E. B.

minor particulars. The difficulty of procuring specimens of these animals in this neighbourhood, however numerous they may be, is much greater than would be supposed, from the doltish apathy of the shikarees, who cannot be induced to deviate from their beaten path of procuring esculent creatures only; and it may yet be a long while, therefore, before I succeed in procuring the materials for describing the species which I have here merely indicated.

A specimen of a Remora, or Sucking-fish, (*Echeneis naucrates*,) has been purchased in the bazaar.

My principal occupation has, however, been lately in arranging our shells, and especially our insects. Of the latter we possess, firstly, the specimens in the cases (including many from Assam and Sylhet), which were either merely arranged according to their localities, or not arranged at all; the former method possessing some advantages, but involving great inconvenience for room, and most unnecessary successions of duplicates of the generally predominant species: secondly, the box of Swan River specimens presented by Mr. Crichton, as noticed in my report for last September: thirdly, those from Afghanistan mentioned in my last report: fourthly, a considerable number that have been taken under my own superintendence in this neighbourhood: and fifthly, a large box of specimens, chiefly *Coleoptera* and *Hemiptera*, thrown loosely upon one another, and consequently, for the most part, much injured, which were presented to the Society by Dr. O'Shaughnessy, and which I suspect (from the prevalence of certain species) to have been from Sylhet or Assam, probably the latter. Many interesting *Curculionidæ* and other hard-cased *Coleoptera* have been picked uninjured out of this lot, and altogether many hundred specimens have been rescued from impending destruction, affording a considerable number of duplicates of some of them, which are of essential service, as supplying the means of getting satisfactorily identified such as have already received names.

A package of various skins, chiefly of birds, has been shipped for the *Collegium Academicum* of Christiana; another to the Cornish institution at Truro, through Dr. Spry; and a third box of specimens has been forwarded to Mr. Jerdon at Madras, from whom, in return, we may expect, shortly, a consignment of valuable specimens from Peninsular India, whitherfrom at present our Museum can boast very few contributions in recent Zoology.\*

I remain, Sir,

With much respect,

Your's obediently,

EDWARD BLYTH.

---

\* Mr. Jerdon's valuable donation has since been received.

*Museum of Economic Geology.*

Read report of the Curator in this Department for the Month of May last.

*Report of the Curator Museum Economic Geology for the month of May.*

*Museum Economic Geology.*—The Memoir alluded to in my last report, explaining briefly the object and wants of the institution, and soliciting contributions has been with the approbation of the Honourable the President and Secretary, printed, and is now on the table. It will be circulated as widely as possible in all the Presidencies, and in Europe, so as to insure us every chance of assistance.

I have resumed the arrangement of the Museum, and hope to get through with it, and the Catalogues shortly.

We are indebted to Mr. Hodgson of Nepal, for a small collection of iron, copper, and lead ores from Nepal, of which one or two are new to the Museum, and all valuable as contributing to our Indian series.\*

*Geological and Mineralogical.*—We have at length to announce the arrival from Kemaon of three, out of five volumes of Captain Herbert's Journals, the remaining two being for the present with Mr. Batten, as explained in his letter.

Upon examining these volumes with reference to the collection in our cabinets, I find they relate first to from numbers 1 to about 375, then from 1 to 379 of the second thousand, and lastly from 1563 to 1612, leaving thus a blank of about 800 names and localities, which I doubt not, or at least I hope, will be found in the other books.

From a cursory examination of these volumes, I will venture to congratulate the Society very sincerely upon the amount of Geological and Mineralogical knowledge, which we have thus, I hope, obtained the means of giving to the world; (if we can but connect Captain Herbert's complicated systems of numbers,) and his friends upon the justice which these volumes will I trust enable us to do to his memory.

Major Manson who was Captain Herbert's Assistant, has been written to, to obtain any assistance which he can give us. We have received in this Department seven specimens (Geological) from Mr. H. Stanley. And I have been chiefly occupied in part with Captain Herbert's collections, and in part with our own Geological series.

H. PIDDINGTON.

*Museum, 31st May, 1842.*

Read letter from Mr. Secretary BUSHBY of the 2nd February 1842, forwarding a box of specimens of Magnetic Iron Ore, from Tavoy, Sulphuret of Antimony from the neighbourhood of Moulmein, and of the Mergui coal received from Captain TREMENEERE.

An interesting Chart of the Barometrical curve, during the late storm, was exhibited to the Meeting by Mr. Piddington, who explained that he was in hopes of obtaining through the data he looked for from this storm, a Barometrical *measure* of the distance

\* I have to mention also, that permission has been obtained from Government to indent upon the Honorable Company's Dispensary, for such re-agents and apparatus as it may possess, which will be required for the Laboratory of the Museum.

of the centre of a hurricane; which conjointly with the method of estimating the distance by mathematical projection, as given in his "Notes on the Law of Storms," published by Government for the use of the China Expedition, would enable the seaman to estimate pretty correctly his distance from the centres, and thus guide his judgment as to the best course to pursue.

For these presentations and contributions the thanks of the Society were accorded.



## ADVERTISEMENT.

---

The “Palæologica” I published in the year 1832, as well as my work on fossil bones of the country of Georgensgmünd (1834) and my palæontological treatises contained in the Transactions of Academies and various Natural Societies, were so favourably received, that since some years I have been honoured with specimens of similar fossil organic remains of a former world, which on examination, offered important matter for results about fossil bones of the Mammalia, Reptiles, and Birds. Whilst these rare treasures were imparted to me by public and private collections of Germany, Switzerland, and the adjacent countries, with a readiness deserving every encomium, I am requested from different parts, not to publish my inquiries separately, but in a particular work. In order to satisfy such unbounded confidence and kind desire, I am willing to advance a work under the above title referring to the Fauna of a primitive world, which will contain my inquiries about fossil bones. As it is impossible to give a complete insight with this advertisement, it will suffice, to form a judgment of its worth, by citing, that this work, among the rest, will treat—of fossil bones of Pachydermata (Mastodon, Rhinoceros, Palæotherium, Dinotherium, Tapir, Microtherium, &c.), Ruminantia (Palæomeryx, Orygotherium, &c.), Rodentia (Lagomys Oeningensis), Carnivora (Harpagodon, Pachyodon, &c.), Tortoises, Sauriens, Frogs, and Birds, which have been found in beds of Lignite or Brown-coal in Switzerland and in other deposits of Molasse in this country, as well as in the pits of pisiforme Iron ore or Möskirch, in the calcareous marl near Oeningen, the gypsum near Hohenhoven, in the strata near Weisenau, and in other tertiary strata; of the skeleton parts of the marine Mammalia, called by me Halianassa, which very well designates the upper tertiary formations of our part of the world; of remains of Sauriens, Tortoises, and Birds from the cretaceous group (in the canton of Glaris, &c.); of the Plateosaurus from the Keuper; of the teeth of the



Ischyrodon ; of Sauriens and Tortoises from the famous formation of the lithographic limestone of Solenhofen ; by the co-operation of the President Baron Andrian and the Count Münster, of the remarkable Sauriens of Muschelkalk (Nothosaurus, Pistosaurus, Charitosaurus, &c.) ; and of the other fossil vertebrated animals.

As to the present eager pursuit of historical investigations about the constitution of the earth and the development of its organic types of animal life, there can be no better evidence than the remains of animals in the crust of the earth, amongst which the vertebrated animals are no doubt of the greatest importance. Thus if we add the creatures produced by the earth in a primitive age to the number at present only, we are able to estimate the riches of the whole creation, and to explain the alternations resulting from the sublime laws of nature. I am confident, therefore, that the publication of a work like this, containing anatomical and geological discoveries of a former world, will be readily promoted.

The work will appear in several numbers, the price of which shall be calculated, as is customary with such works, after the number of sheets in German, printed in Latin letters in gr. 4°, and according to the number of tables in fol°. with plates after my own drawings, or executed after my immediate direction. As gain is not the object of this publication, the lowest price cannot be determined before I know the number of subscribers ; the number of copies will not exceed much the number required, and the price in every case, will not be higher than that of similar works. The subscribers will please to send their direction to the author by the post, or by well known libraries, but plainly written. The list of subscribers will be joined to the work.

HERMAN VON MEYER.



